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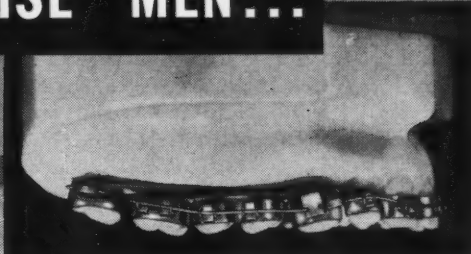
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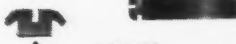


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Original Articles

TISSUE BEHAVIOR DURING ORTHODONTIC TOOTH MOVEMENT

KAARE REITAN, L.S.D., M.S.D., PH.D., OSLO, NORWAY

INVESTIGATORS of clinical results in orthodontics have from time to time called attention to one fundamental observation, namely, that the tissues undergoing changes in orthodontic therapy are limited chiefly to the alveolar process. This observation, which was not made until after Broadbent's invention of the x-ray cephalometer, has contributed markedly to the understanding of what really takes place in the tissues during orthodontic treatment. In fact, this observation constitutes a challenge to our profession. Although many case analyses in practical orthodontics comprise an evaluation of dimensions and proportions in the jaws and the base of the skull, our field of operation is mainly restricted to the relatively small area of the supporting structures of the teeth. These structures remain the center of activity in every tooth movement, and a careful study of their reaction and behavior therefore seems justified.

As we know, the alveolar process, consisting of epithelial tissue, fibrous tissue, and bone, is subjected, during and after its developmental stage, to changes caused by growth, muscle function, and in some cases orthodontic tooth movement. Some aspects of tissue behavior during orthodontic treatment are fairly well known. Hence, one may distinguish between such fundamental laws of reaction as can be applied to all types of tooth movement. On the other hand, one may mention various findings observed in special types of experimental tooth movement, which are still undergoing new tests and observations.

From the Norwegian Institute of Dental Research, Oslo, Norway.

Presented before the American Association of Orthodontists, Washington, D. C., April, 1960.

Tooth movement in general may conveniently be divided into two types:

1. Continuous tooth movement (fixed appliances)
2. Intermittent tooth movement (removable appliances)

The findings to be discussed in this article are related chiefly to the continuous type. Investigation of a large number of experiments on both types has, for instance, disclosed the following law: The distance through which the tooth moves is dependent on the duration of the force applied. This seemingly obvious statement is true for intermittent forces as well. A plate that is worn night and day will cause more tooth movement than a plate worn only at night. But, as pointed out many years ago by Schwarz⁹ of Vienna, this law is hardly valid unless the magnitude of force is considered.

Fig. 1.

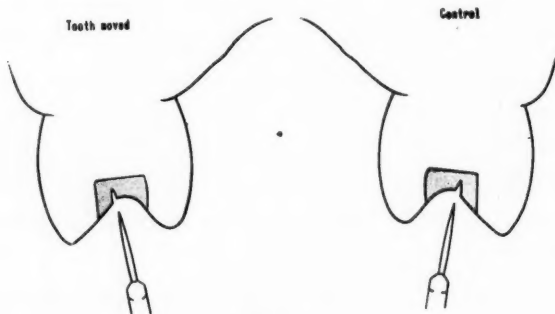
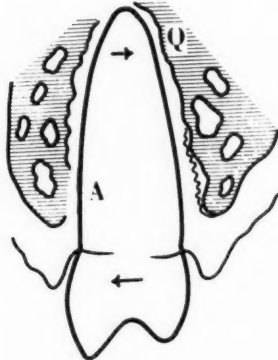


Fig. 2.

Fig. 1.—A, Marginal pressure area.

Fig. 2.—Note holes prepared in amalgam fillings.

In order to obtain a maximal tooth movement within a given period, the force applied must be of a sufficient magnitude and act through a distance that is suitable to the prevailing anatomic and mechanical conditions.

In other words, what we call tissue reaction is related to a series of factors, of which two especially will be considered here: (1) formation of cell-free areas and (2) reaction of fibrous tissue. Both factors may, to a large extent, determine the sequence of events in a tooth movement. Their significance may

be demonstrated by presenting material from various experimental series, some of which has never been reported before. The experimental material to be shown here is related to three types of tooth displacement—tipping movement, bodily movement, and rotation of teeth. It is primarily of interest to observe the reaction in the various regions of the periodontal membrane when teeth are subjected to such different movements as tipping and bodily movement.

Tipping Movement.—Formation of cell-free areas is a characteristic tissue response in a tipping movement (Fig. 1). The incidence of such compressed areas can be verified and studied by measuring the distance through which the tooth has been moved, histologic examination of the supporting structures, or both. When occasionally human premolars to be extracted may be used as experimental teeth, it has proved practical to insert amalgam fillings in order to obtain accurate measurements. The points of the divider are then placed in tiny holes prepared in the amalgam fillings (Fig. 2). A similar method may be applied in animal experiments.

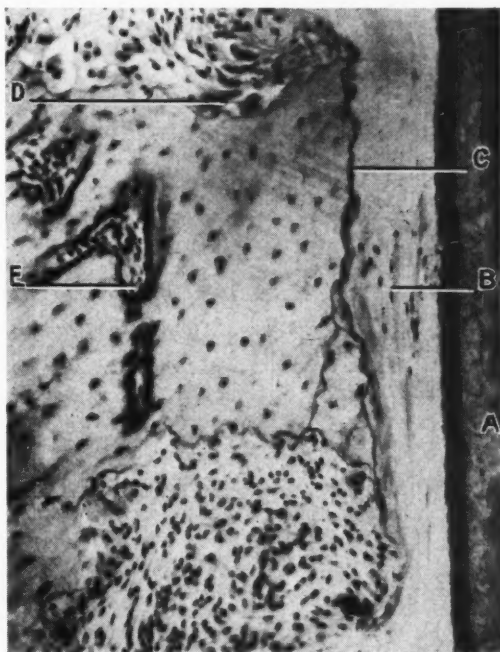


Fig. 3.—Pressure area corresponding to A in Fig. 1. A, Root surface; B, compressed cell-free fibers; C, border line between bone and hyalinized tissue; D, undermining bone resorption; E, small narrow space in dense, compact lamina dura.

In a tipping movement, cell-free areas may be formed primarily in the marginal region of the root. Because of the narrowness of the periodontal membrane, fibrous tissue will soon be compressed, whereby cells gradually disappear in a circumscribed area. The sequence of events in the initial stage of a tipping movement performed with a resilient spring is shown in Fig. 3. The first part of the graph indicates how the tissues are gradually compressed

on the pressure side. The horizontal line indicates the duration of the cell-free area after the tooth has come to a standstill. In this case the cell-free area remained for nineteen days. The compressed area related to this graph was formed during labial movement of a human first premolar (Fig. 4). In this case the bone wall was rather compact, originally forming an unbroken

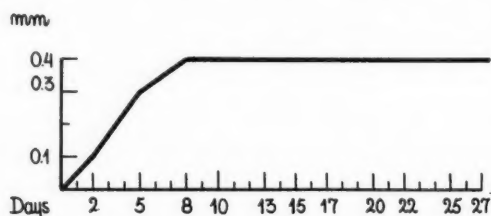


Fig. 4.—Graph illustrating tooth movement in the case shown in Fig. 3. It appears that gradual compression of periodontal fibrous tissue occurred during the first eight days.

line parallel to the root surface. There was actually an indirect bone resorption. This cell-free area had delayed movement for nearly three weeks and it probably would have been several days before this remaining bone spicule was completely removed.

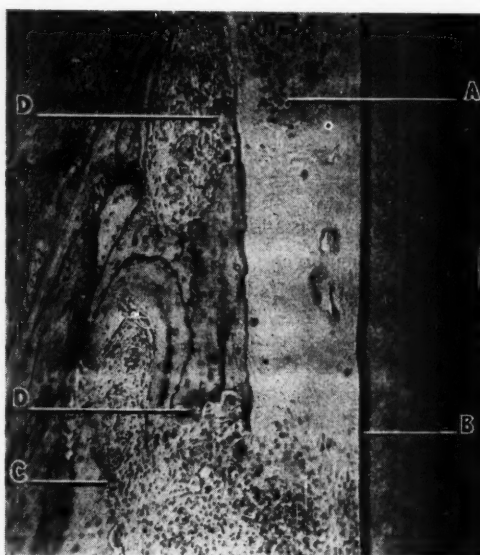


Fig. 5.—A, Formation of cells and capillaries in hyalinized tissue after the force was released; B, root surface; C, direct resorption; D, undermining resorption.

It has been assumed that by applying a very light force one might avoid such formation. This is true to some extent, but not as regard the initial stage of a tipping movement. Because the tooth is tipped, removable plates also frequently induce formation of cell-free areas in the initial stage. In a continuous tipping movement, a gradual compression of periodontal fibers may occur regardless of whether the force is 25 grams or 125 grams, but if the initial force is light this cell-free area will be less extensive. No resorption is found in the bone area covered by cell-free fibers; undermining resorption

starts in the bone wall around the hyalinized tissue. It has been claimed that such compressed cell-free fibers should be necrotic. This is very seldom the case. When the pressure is relieved, new cells and capillaries will reappear in the formerly cell-free tissue (Fig. 5). This was a hyalinized area after the movement was discontinued. New cells and capillaries are formed in the formerly hyalinized tissue.

Fig. 6.

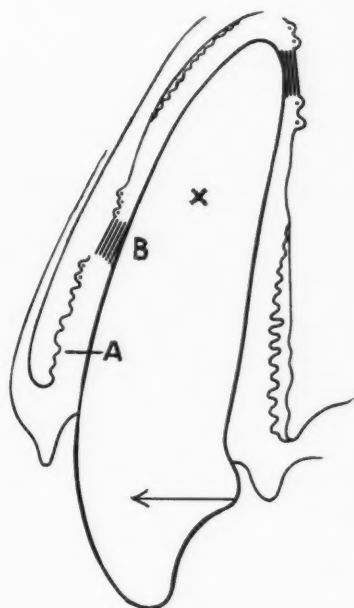
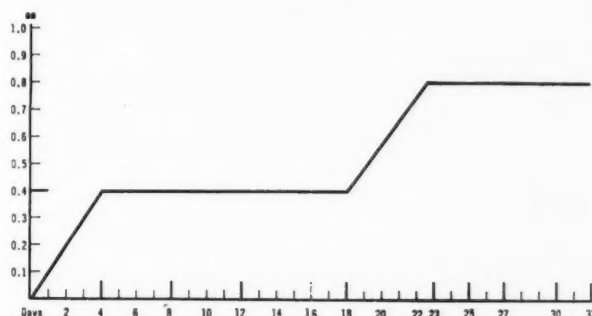


Fig. 7.

Fig. 6.—Graph illustrating a tooth movement by excessive force. On the twenty-third day, formation of a new cell-free area occurred (Fig. 7).

Fig. 7.—A, Location of the first hyalinized area; B, second compressed area.

When ultimately the bone subjacent to the compressed area is removed by indirect resorption, the magnitude of force is still quite important. If the force acts through some distance and exerts a pressure of, for instance, several hundred grams, measurements of tooth movement may result in a graph such as that shown in Fig. 6. Because of the strong force exerted, a new pressure area was formed shortly after the first one was removed (Fig. 7).

The tooth acts as a lever and, due to the mechanics involved, considerable pressure will be exerted in the apical region, frequently leading to resorption and loss of root substance. Hence, there is a mechanical disadvantage in a tipping movement. This may be overcome, to some extent, by controlling

Fig. 8.

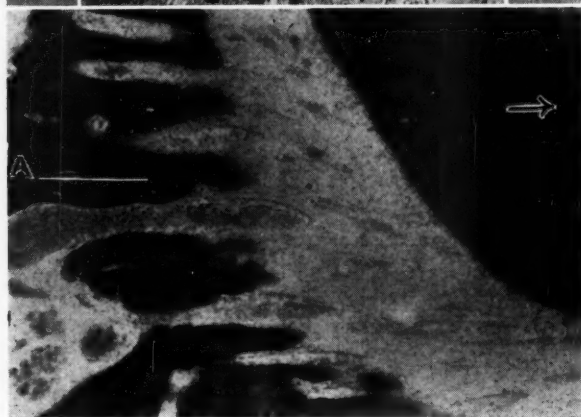
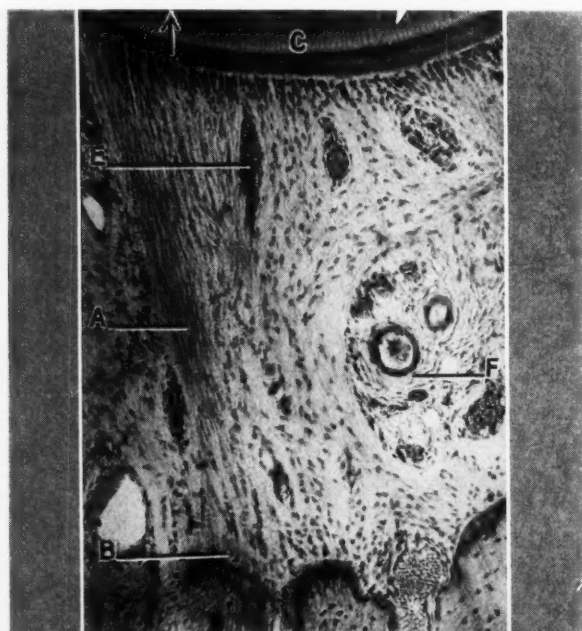


Fig. 9.

Fig. 8.—A, Stretched fiber bundles as a result of tooth movement of short duration; B, apposition of osteoid in area where stretched fibers are attached; C, root; D, alveolar bone; F, capillaries sectioned horizontally.

Fig. 9.—Bone formation along stretched fiber bundles following tooth movement of six weeks' duration. A, Newly formed bone spicule.

the magnitude of force and the duration of movement. If the force is kept light, hyalinized tissue may be formed in the initial stage and less in the further course; thus, a considerable movement is obtained in a short period of time.

The second factor which may cause resistance or delay in tooth movement is stretching and displacement of fibrous tissue and its subsequent reaction. In a tooth movement of short duration, stretched fibers may be observed on the traction side after one or two days (Fig. 8). It is now generally accepted that the fiber bundles running from the root to the bone surface will be elongated more or less permanently, provided the tooth is retained for a sufficiently long period. Fig. 9 shows how the bone is laid down along stretched fiber bundles. An increase in the number of fibroblasts and osteoblasts is observed. This is a proliferation stage. Retention is necessary in such a case because the fiber bundles in the newly formed bone tissue require time for secondary changes.



Fig. 10.—Arrangement of fibrous matrix in normal bone.

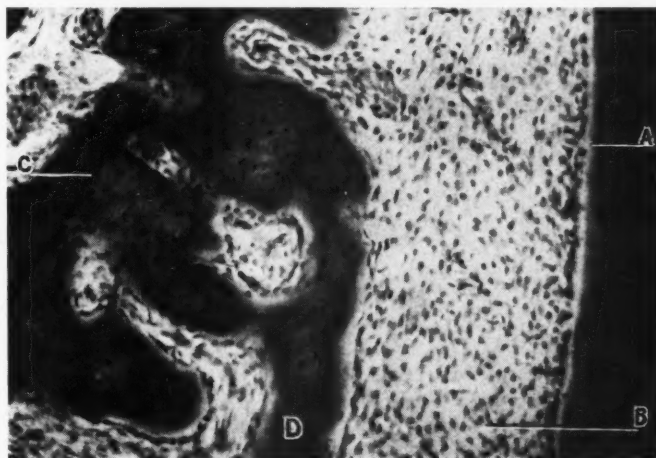


Fig. 11.—Rearrangement of bone spicules after a retention period of six weeks (compare with Fig. 9). A, Cementoid along the root surface; B, periodontal membrane; C, demarcation line between old and new bone; D, rearranged bone layer.

During retention this transformation may take place without much change in tooth position. An examination of the fibrous matrix in normal bone reveals an arrangement of the kind seen in Fig. 10. When displaced or stretched, this fibrous system tends to be rearranged. For the same reason, newly formed bone layers on the traction side remain unstable for some time. Some contraction will occur shortly after the tooth movement has been completed, a tendency which diminishes during the retention period (Fig. 11).

A more prolonged tendency to contraction of fiber bundles persists in the supra-alveolar structures, and these fiber bundles are not so readily rearranged as those of the periodontal membrane (Fig. 12). It is now about twenty years since I first called attention to this fact in experiments carried out on rotation of teeth. The work by Erikson, Kaplan, and Aisenberg¹ and

Fig. 12.

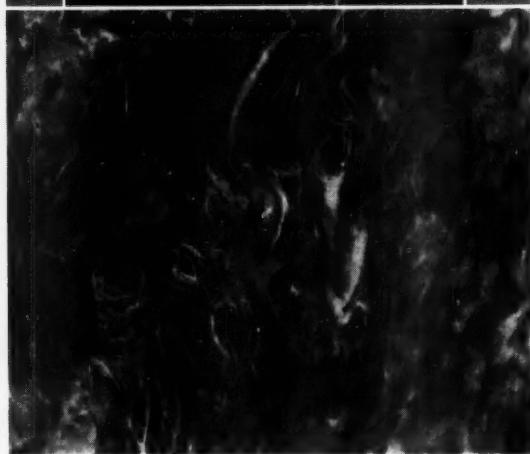
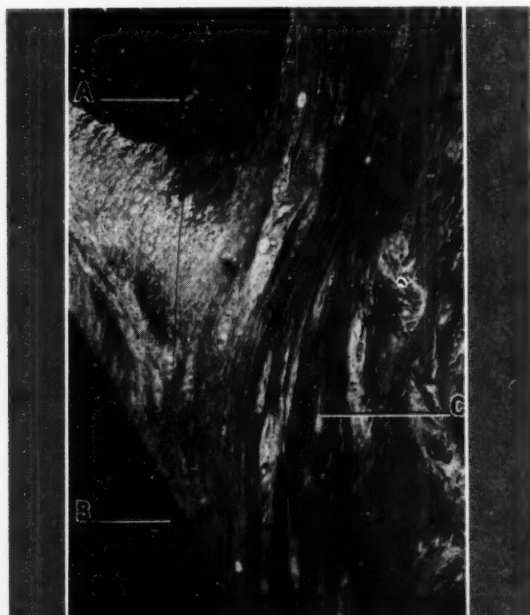


Fig. 13.

Fig. 12.—Human material. A, Alveolar bone crest; B, root; C, free gingival fibers.
Fig. 13.—Human material. Elastic fibers in supra-alveolar tissue.

of others has given support to this observation, and recently Thompson and associates¹⁴ made similar observations in their experimental work. In a human control material one may observe how free gingival fiber bundles interlace with the supra-alveolar structures. In addition, there are elastic fibers in the supra-alveolar tissue. Fig. 13 shows an example of such fibers in a specimen taken

from human supra-alveolar structures. When displaced, these structures will preserve a tendency to rearrangement for a considerable period of time.

The effect of contraction of the whole fibrous system may be observed in experiments in which teeth are tipped and then released. In two 1-year-old dogs upper and lower second incisors were tipped in a lingual direction by forces exerting 100 grams on one side and 200 grams on the other side. The tipping movement lasted for forty days and then the appliances were removed, after which the teeth were observed for eight days. It appeared that the teeth moved by 200 grams had not been displaced through a greater distance than those teeth moved with a force of 100 grams.

Fig. 14.

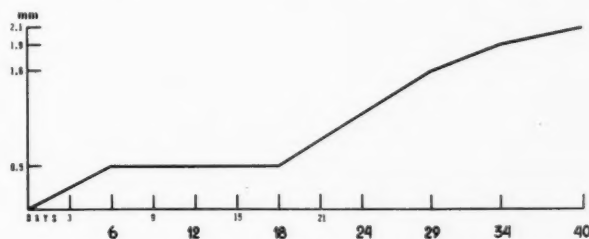
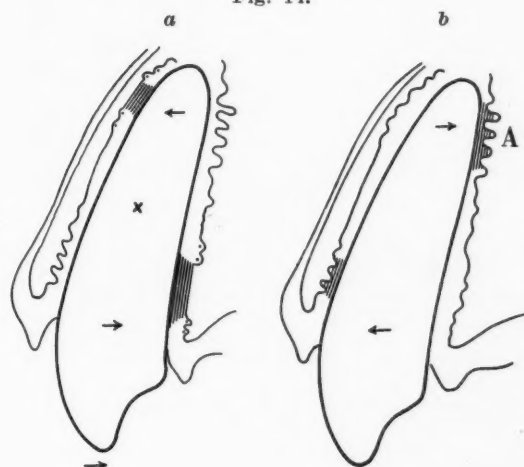


Fig. 15.

Fig. 14.—*a*, Formation of cell-free areas during tooth movement of an upper second incisor in the dog. Duration, forty days; continuous force, 200 grams. *b*, Formation of hyalinized areas during the relapse period. A, Extensive cell-free area formed during the relapse period.

Fig. 15.—Graph illustrating duration of hyalinized area of tooth shown in Fig. 14,*a*.

After the forces were released, a relapse occurred in every case (Fig. 14). A graph illustrating a typical case is seen in Fig. 15. The cell-free area lasted for twelve days. The tooth was moved about 2 mm. during a period of forty days. It is noted that some relapse occurred after two hours; this was partly caused by the tooth regaining a more upright position within the periodontal space. Still more relapse occurred on the following days—in all, a little more than 0.5 mm. In these cases, as in most tipping movements of short duration, the apical portion of the root will be moved in an opposite direction during the relapse period. In several experiments of the present series a cell-free area

had been formed on the opposite side of the apical region and in some instances on the corresponding marginal side (Fig. 16). In other words, contraction of the fibers was strong enough to produce hyalinized tissue. An indirect bone resorption will follow, and more relapse is bound to occur when this newly formed bone tissue has been resorbed on the former traction side.

Formation of cell-free areas in the apical region during the relapse period is observed in human tissues, too, when the force is excessive but not after application of a light force. Fig. 17 illustrates the relapse after tipping of a premolar. No cell-free area had been formed in the apical region after removal of the appliances. The tooth was moved 0.7 mm. in seventeen days; the relapse was 0.3 mm. in five hours. The continuous force applied in this case was 50 grams.

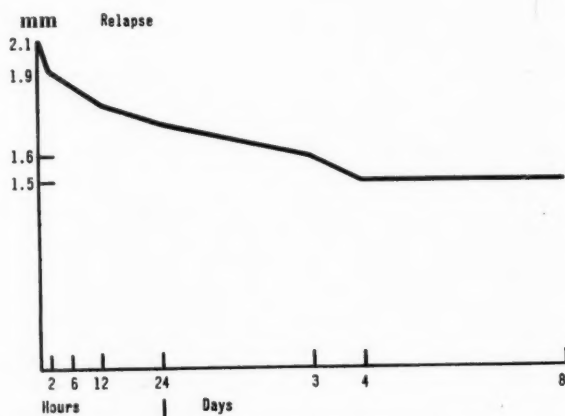


Fig. 16.—Relapse during a period of eight days (tooth shown in Fig. 14, b).

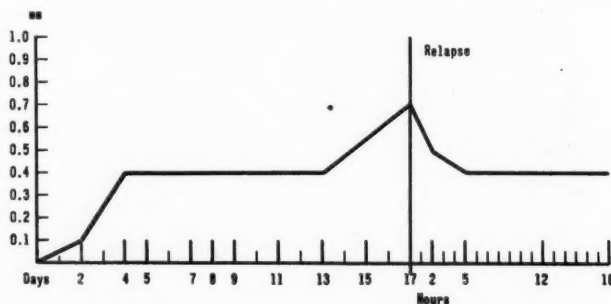


Fig. 17.—Tooth movement and subsequent relapse of an upper first human premolar. Duration of movement, seventeen days; relapse measured during eighteen hours.

The conclusion to be drawn from these observations is that relapse after a tipping movement must be considered the result of a normal function of the periodontal fiber system. When the tooth has been tipped rapidly, this contraction may produce cell-free areas on the former traction sides.

Bodily Tooth Movement.—A comparison between bodily and tipping movements is seen in Fig. 18. This is a case of missing central incisors, where the lower lateral incisors have been approximated. Care was taken to move the left lateral incisor bodily, while the right lateral incisor was subjected to a tipping movement. The continuous force was gradually increased from 40 to

140 grams. The movement lasted for three months. It is noted that, adjacent to the tooth subjected to a tipping movement, a compressed area had been formed in the marginal region, causing some root resorption. There is likewise some root resorption in the apical region. The tooth moved bodily has produced no root resorption; there is bone resorption all along the pressure side, and a corresponding layer of new bone has formed on the traction side.



Fig. 18.

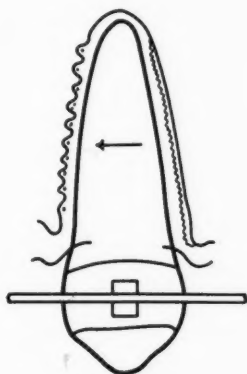


Fig. 19.

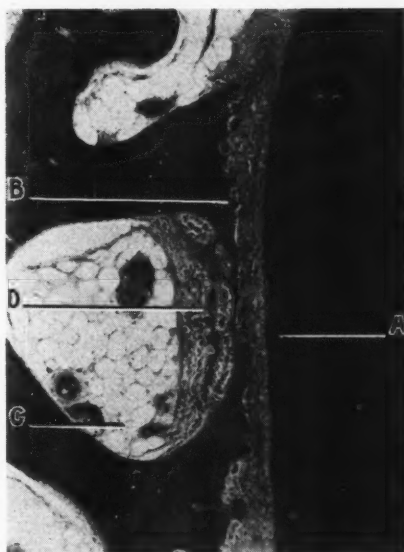


Fig. 20.

Fig. 18.—Mesial movement of two lateral incisors. Left tooth tipped, resulting in root resorption at *x* and in apical portion. Right tooth moved bodily; no root resorption.

Fig. 19.—Ideal bodily tooth movement.

Fig. 20.—Pressure side of tooth moved bodily. *A*, Root surface; *B*, direct bone resorption; *C*, large space with fatty marrow; *D*, transformation of fatty marrow into loose fibrous tissue and formation of compensatory osteoid layers in response to bone resorption along the inner bone wall.

This is what happens under ideal conditions (Fig. 19). Because the force is distributed over the whole side of the root, there is, in general, less tendency to formation of compressed areas in a bodily movement. A cross section of a tooth moved bodily is seen in Fig. 20. Direct bone resorption takes place along the bone surface.

There are other ways of moving the tooth bodily, however, as for instance, when the root is moved with a fulcrum established in the bracket area. In

this type of tooth movement, one should distinguish between a movement of torque and a distal or mesial tipping movement. The device used for measuring the force exerted in a movement of torque is seen in Fig. 21. By determining the root length from the roentgenogram and by placing the device on the arch

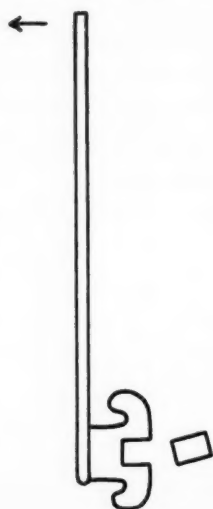


Fig. 21.

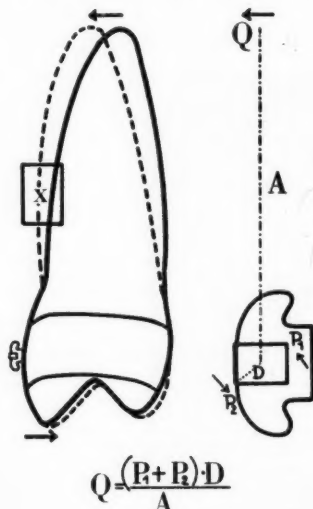


Fig. 22.

Fig. 21.—Instrument for measurement of force exerted in torquing movement.

Fig. 22.—The force exerted in a movement of torque. The reaction at Q equals the force exerted at the corners P_1 and P_2 multiplied by one-half the length of diagonal D and divided by the length of the root A .

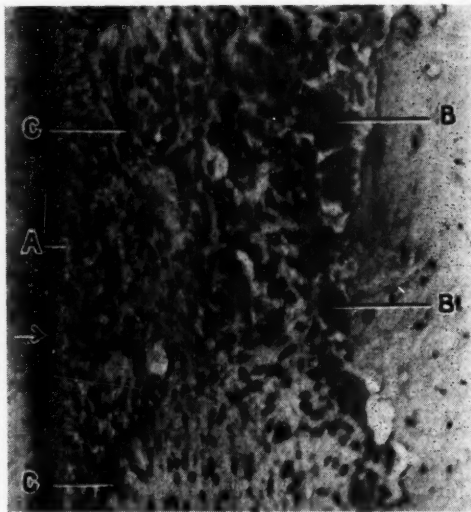


Fig. 23.—Area X shown in Fig. 22, the middle region of an upper first premolar moved by torque. A , Root surface; B , osteoclasts, direct bone resorption; C , epithelial rests.

before the band is cemented, one may measure the force at the end of the section and thus obtain information about the magnitude of force exerted in the apical region, which is of interest. In a series of experiments already reported,⁷ it was found that the movement of torque will cause a tissue reaction that must be described as favorable (Fig. 22). The mechanics are also favorable

as seen from the formula. Because the fulcrum is securely established in the bracket area, and because the force is distributed over the whole side of the root, direct resorption is frequently found in these cases, provided the magnitude of force is kept within certain limits. Fig. 23 shows the reaction observed in the middle region of an upper first premolar in a 12-year-old boy after torque in which the root was moved in a labial direction for three weeks. Because this is a typical bodily movement, direct bone resorption is found on the pressure side. In this case the force exerted in the apical region was 130 grams, which is a light force. After a tipping movement, compressed cell-free tissue would have been found on this side of the root.

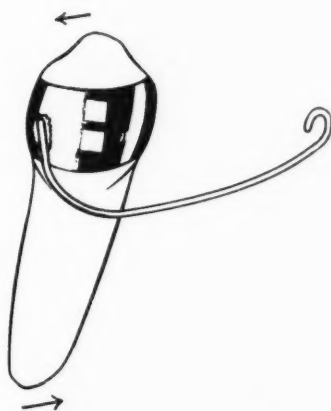


Fig. 24.

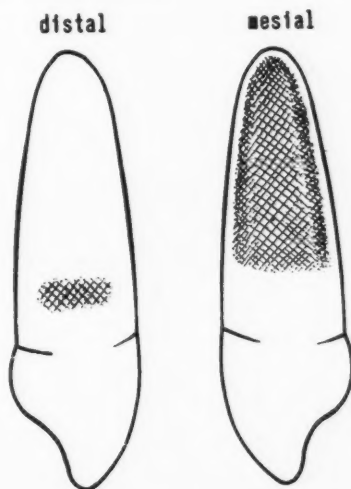


Fig. 25.—Areas under pressure during a distal tipping movement.

In contrast to this type of movement, distal or mesial tipping is more complex. The tissue reaction observed after distal tipping was investigated in experiments on dogs. In order to facilitate measurement of the force exerted, an extension was soldered to the band (Fig. 24). When the loop is lifted to the arch, it causes the apical root portion to move in a mesial direction and the crown portion in a distal direction. A thin arch was inserted so as not to check the root movement. It appears that the length of the section as measured from the bracket, multiplied by the force exerted at the end of the section when placed on the arch, may be divided by the length of the root:

$$\frac{\text{Length of section} \cdot \text{active force}}{\text{Length of root}} = \text{Force exerted in apical area}$$

Since the force is distributed over the mesial root surface, however, this number again should be divided with the surface area of the side of the root. On the distal side one should expect that the force would be concentrated in the marginal region. Fig. 25 shows the areas of the root exerting pressure—a small circumscribed area in the marginal region on the distal side and a much wider area on the mesial side. Hence, the mechanics involved are more favorable on the mesial than on the distal side.

Premolars and upper second incisors in the dog were used for these experiments. With a few exceptions, the force exerted in the apical region was kept between 120 and 150 grams. It soon appeared that the position of the experimental tooth constitutes a determining factor (Fig. 26). If the tooth moved is in contact with the distal proximal tooth, no marked hyalinization will be found on the distal side. During the initial stage, semihyalinized areas, with some fiber bundles temporarily compressed, were found adjacent to protruding bone spicules. Occasionally, compressed areas were seen on the mesial side during the initial stage. Further on, direct bone resorption prevailed on both sides.

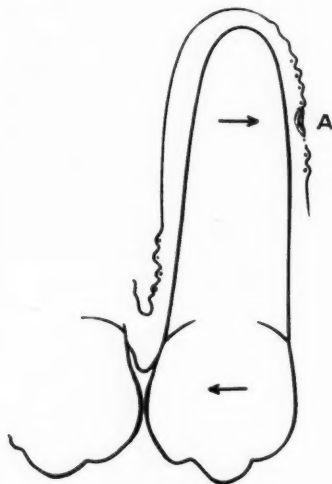


Fig. 26.

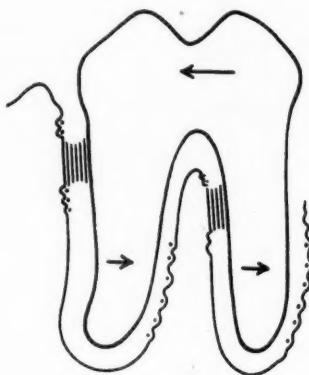


Fig. 27.

Fig. 26.—Distal tipping of upper second incisor in the dog. No hyalinization on the distal side because of proximal contact with distal tooth. A, Semihyalinized area of short duration.

Fig. 27.—Distal tipping of lower second premolar in the dog. Hyalinized areas on the distal side; no hyalinization on the mesial side.

Another important factor is the length of the root. If the root is short, hyalinized areas may be found in the initial stage of a distal tipping movement, even if the active force is relatively light. This is due to the mechanics involved. An example is found in second premolars in the dog, the roots of which are relatively short in some animals.

In addition, contrary to the position of the front teeth, the premolars are well spaced, so that the mechanics involved change considerably. Because the bracket slides distally along the arch, there will be more compression of the periodontal membrane. Thus, in the initial stage hyalinization was observed in all experiments with premolars. Direct bone resorption was found on the mesial sides, notably in cases where the roots of the experimental tooth were well developed (Fig. 27). These observations tend to prove that the tissue changes in a distal tipping movement are favorable, provided that the root is well developed and that the bracket area remains relatively stable during the initial stage of movement.

In practice, the result of mesial or distal tipping may be observed in the roentgenogram. Fig. 28 shows a canine and a second premolar that were approximated and uprighted after extraction of the first premolar. It was found that the mechanics involved were favorable. Direct bone resorption prevailed on the pressure side. On the traction sides, new bone layers were formed along stretched fiber bundles. These new bone spicules will be transformed during the ensuing resting period (Figs. 9 and 10).

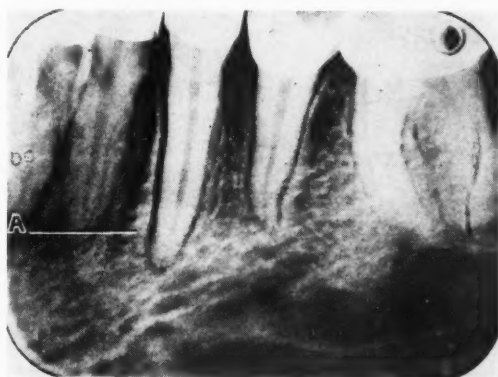


Fig. 28.—Roentgenogram of a lower second premolar and a canine that were approximated and reuprighted. Bone formation at A, as seen in Fig. 9.

Rotation of Teeth.—Experimental rotation may reveal several interesting facts about tissue behavior. In a rotating movement, for instance, one may observe direct bone resorption as compared with the indirect type. Most teeth to be rotated have roots that are more or less oval in cross section. For that reason, cell-free pressure areas may be formed in the initial stage, frequently on both sides of the root. In his experimental work, Stuteville¹³ pointed out that direct bone resorption takes place chiefly in areas where the root is moved toward the bone wall without any marked compression of the periodontal

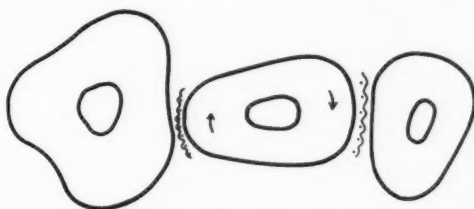


Fig. 29.

fibers. This observation has proved to be correct. In Fig. 29 the labial and lingual sides of the root are moved more or less parallel to the bone wall, and direct resorption is therefore always found in these areas. When the root is moved parallel to the bone, direct resorption takes place along the bone surface and there is frequently a compensatory rebuilding on the bone wall in the periodontal membrane of the proximal root. It is noted that the outline of the new bone layers is moderated and formed according to the location of the capillaries. If bone formation continues, these capillaries may ultimately appear as central areas in new marrow spaces.

If the root is not moved parallel to the bone surface, root resorptions are frequently observed during rotation. These resorbed areas are repaired as soon as the movement is discontinued. Fig. 30 shows a layer of cellular cementum formed in a resorption lacuna during a retention period of nine weeks. After a long retention period, one may observe how the resorbed area is completely filled out by cellular cementum.

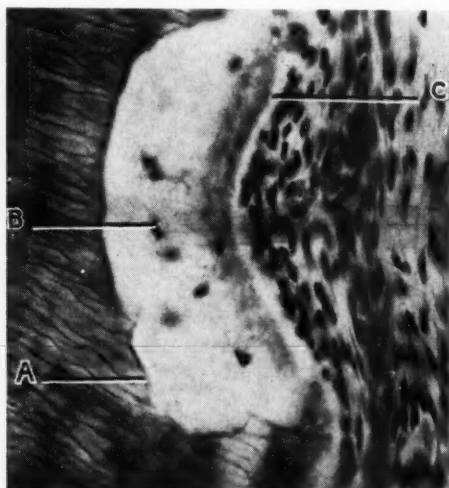


Fig. 30.—Repaired root resorption. Cross section of resorbed area following rotation and subsequent retention for nine weeks. *A*, Demarcation line between dentine and cellular cementum; *B*, cell incorporated in newly formed cementum; *C*, new cementoid layer bordered by cementoblasts.

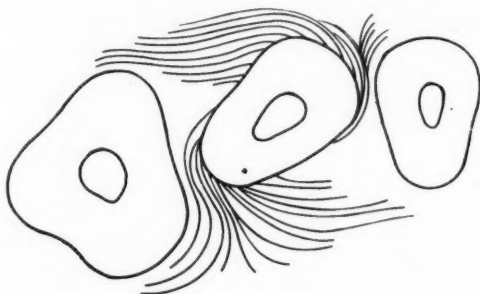


Fig. 31.—Arrangement of free gingival fibers after rotation.

In a rotating movement the periodontal fiber bundles are partly stretched and partly elongated. An oblique arrangement of all the principal fiber bundles is usually seen comprising those in the apical region. This oblique arrangement is also found in the supra-alveolar structures (Fig. 31). In this region, however, the structures involved are more displaced than elongated, since the free gingival fibers interlace terminally with the fibrous tissue of the gingiva. Skogsborg,¹¹ of Sweden, tried to prevent relapse of the tooth moved by transecting these fibers. In a recently terminated tooth movement, however, transection or even surgical removal of the supra-alveolar structures appeared to be insufficient. He succeeded in preventing a relapse only by

cutting deeper into the interproximal tissue on both sides of the root.¹² This result is what could be expected, since shortly after the rotation all fibers were arranged obliquely and there would be some contraction of the fibers running from the root into the bone wall.

Retention of the rotated tooth may change the histologic picture. In one series of experiments, reported last year, six teeth in the dog were retained for varying periods (Table I). As seen from Table I, rearrangement of fibrous

TABLE I. REARRANGEMENT OF FIBROUS TISSUE

TOOTH	RETENTION (DAYS)	MARGINAL	MIDDLE	APICAL
+2	15			
2+	28		++	++
+2	57	+	++	++
2+	83	+	++	+++
+2	147	+	+++	+++
2+	232	+	+++	+++

+ = Slight rearrangement.

++ = Structures fairly well rearranged.

+++ = Complete rearrangement.

tissue during retention takes place much earlier in the middle and apical regions than in the marginal region. After fifteen days' retention there was no rearrangement at all. After twenty-eight days, there was no rearrangement in the marginal region, but fibrous tissue in the middle and apical regions was fairly well rearranged. Retention for fifty-seven days showed partial rearrangement of marginal fibrous structures on the proximal sides of the root but not on the lingual and labial sides. Retention for eighty-three and 147 days revealed a similar difference in rearrangement between marginal structures and middle and apical structures. Complete rearrangement is observed in the middle and apical regions after retention for 147 and 232 days.

A comparison between the apical and marginal regions at this stage may illustrate this difference. Fig. 32 shows the periodontal fibers in the apical region after retention for 147 days. The bone spicules are rearranged, and the fiber bundles are again relaxed as if no rotation had been performed at all. This is not the case in the marginal region. Fig. 33 shows an area from the labial side of the tooth retained for 232 days. As may be seen, these fiber bundles are still arranged obliquely, indicating a persisting tension and displacement of the supra-alveolar structures.

What would happen to these free gingival fibers if the tooth were retained for a certain period and then released? The method used for retention consisted of bands provided with short pieces of wire (Fig. 34). In another experiment, after a retention period of 110 days, the retention appliance on the left side was removed, after which the rotated tooth was observed for twenty-two days. It appeared that some relapse occurred. Histologic sections of the released tooth (Fig. 35), seen to the right, with supporting structures showed that the free gingival fibers were more rearranged, although not completely, around the released tooth than around the tooth retained all the time, that is, for 132 days.

This observation tends to confirm the belief that it is advisable to over-rotate. A minor relapse of the tooth moved, whereby some relaxation of displaced supra-alveolar fibers would occur, is then admissible. It is also likely that it would be better to apply a method for retention that provides a certain degree of individual tooth movement. How much sooner the free gingival fibers would be rearranged under the influence of an increased individual tooth movement is a matter for further investigation.

Fig. 32.

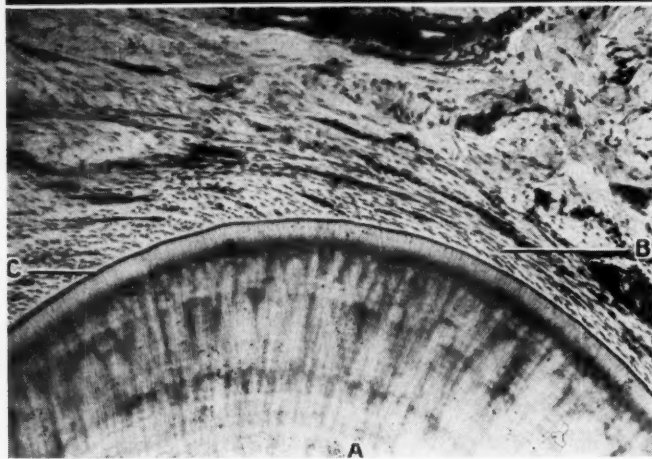
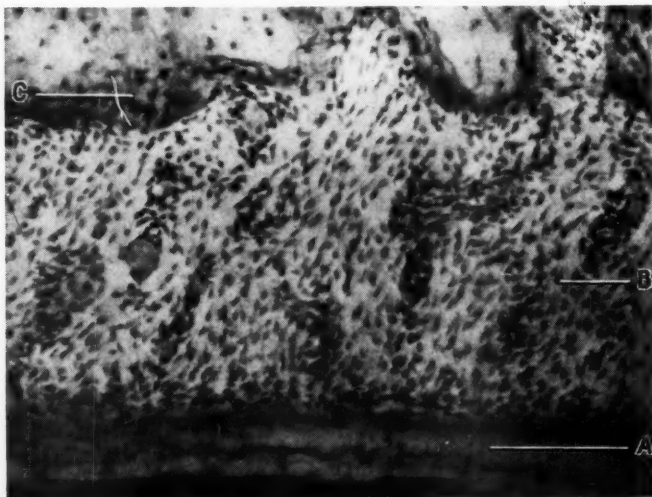


Fig. 33.

Fig. 32.—The periodontal fibers completely rearranged in the apical region of tooth retained for 147 days. A, Root; B, periodontal membrane; C, rearranged alveolar bone.

Fig. 33.—Persisting oblique arrangement of free gingival fibers; tooth retained for 232 days. A, Tooth; B, stretched periodontal fibers; C, cementoid layer along root surface.

There are, however, other factors in the relapse problem. For instance, there is a greater tendency to relapse in some persons than in others. The individual characteristics or the quality of fibrous structures must be taken into

consideration. This is again related to the age factor.⁶ Early treatment, before the apical portion of the root is fully developed, may prevent relapse tendencies, especially as regards rotation of teeth.

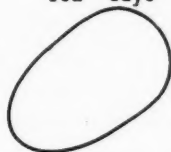
SUMMARY

Some of the present observations may be summarized as follows: Contraction of fibrous structures after tooth movement must be considered a normal tissue reaction. After a tipping movement this contraction may produce compressed cell-free areas on the traction sides. The ensuing undermining bone resorption may increase the relapse tendency.

Fig. 34.



Retention
132 days



Retention
110 days



Observation
22 days

Fig. 35.

Fig. 34.—Bands placed for retention of second incisor.

Fig. 35.—Note degree of relapse of tooth released after retention.

The mechanics involved in a bodily movement tend to favor a direct bone resorption on the pressure side.

Following rotation, tension and displacement of supra-alveolar structures may persist even after retention. Early treatment or overrotation may, to a large extent, prevent relapse tendencies.

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THE AMERICAN BOARD OF ORTHODONTICS*

WENDELL WYLIE, SAN FRANCISCO, CALIF.

BECOMING a diplomate of the American Board of Orthodontics has increasingly become the ambition of large numbers of orthodontists who are eligible to apply for certification. Fortunately, the requirements of the Board are reasonably flexible and include the following: One must have graduated from a dental school accredited or otherwise recognized by the Council on Dental Education of the American Dental Association; one must hold a license to practice dentistry issued by a legally constituted examining board or other legal authority; and one must have had an exemplary record of professional ethics. More explicit requirements which sometimes provide some delay before one can apply are that one must have been in the exclusive practice of orthodontics for at least five years at the time of filing an application and one must have been an active member of the American Association of Orthodontists for at least two years. In computing the length of time which one has been in the exclusive practice of orthodontics, one may count the time spent in full-time training in orthodontics.

Besides these requirements are those concerning one's orthodontic training, and these are at this time necessarily flexible. Two years of successfully completed graduate or postgraduate orthodontic training in an accredited university will satisfy the educational requirement. Also, 24 months of full-time preceptorship in the office of a member of the American Association of Orthodontists will also suffice. A supervisory preceptorship of 48 months will also meet the requirements; a supervisory preceptorship means that the supervision by a member of the American Association of Orthodontists is much the same as a regular preceptorship, with the older man conscientiously determining as best he can the applicant's ability, appraising the extent and quality of records for diagnosis, treatment planning, and offering proper suggestions for improvement. The difference is that in a supervisory preceptorship the applicant need not be associated in the office of his preceptor.

This does not comprise a complete description of the educational requirements imposed on those who apply for certification, for formal university training may be combined with full-time preceptorship or with supervisory preceptorship, or the latter two forms may be combined, and the specifics of these

*Reprinted by permission from the *Bulletin* of the Pacific Coast Society of Orthodontists, August-September, 1960. Dr. Wylie, President of the American Board of Orthodontics, is a member of the faculty of the University of California School of Dentistry.

requirements may best be determined by writing to the Secretary of the American Board of Orthodontics, Dr. Alton W. Moore, at the School of Dentistry, University of Washington, Seattle 5, Washington. Curriculum II graduates of the University of California are required, through an agreement between the Board and the Council on Dental Education, to have had a 24-month supervisory preceptorship in addition to their formal university training.

When the applicant is fairly certain that he can meet these requirements, he should fill out the application form which the secretary of the Board will supply and return it to the secretary, together with his check for \$150.00 accompanied by a photograph. His check will be refunded if the Board concludes that the applicant has not yet met all of the requirements as stipulated.

The American Board of Orthodontics meets once a year, immediately preceding the annual meeting of the American Association of Orthodontists. At this time it reviews the applications on hand and approves or rejects them. For all those approved, the Board decides upon the requirements for examination and notifies the applicant accordingly. The applicant is expected to have his material for examination prepared by the next annual meeting. If he is unable to complete these requirements by that time, he has the right to petition for an additional year. Should this additional year be granted and he is still unable to complete the requirements, he has the privilege of requesting a final year to do so. In the event he does not meet his requirements by this final year, his application is cancelled and the fee forfeited. The Board reserves the right to assess a penalty, not to exceed \$25.00 per year of extended time, when applicants fail to present their material for examination at the time of the annual meeting following notification of requirements, or when extensions of time arise through failure in whole or in part.

Should a candidate file his requirements by the required time and fail his entire examination, or any part thereof, he has the privilege of repeating the full examination, or the part failed, one full year after having taken his first examination and before the expiration of five years.

If, on taking the second examination, he should fail any part thereof, the Board shall stipulate the conditions whereby the deficiency may be removed, including time allowances. If he should fail his entire re-examination, his application will be cancelled. He may, then, after due preparation, file a new application.

The examination itself may include any or all of the following: A thesis or essay on orthodontics or an allied field; case reports; sets of casts fitted with appliances suitable for treatment of the cases shown; personal visits to offices of applicants; written or oral examinations; clinical presentations; laboratory and technic examinations.

In recent years the examination has consisted of essentially three parts, although at any time without special notification the Board may stipulate any or all of the above as part of the examination. The portions of the examination procedure most consistently used in recent years have been the thesis or essay, case reports, sets of casts, and the oral interview.

The thesis or essay should provide the Board an opportunity to judge the candidate's competence as an orthodontist, and it should be one which has been specially prepared for the examination—not one previously presented, published, or offered, as for a Master's thesis or prize essay contest. All applicants approved in 1961 and thereafter will be required to submit with their application a 250 to 300-word summary stating the title and outlining the scope of the subject selected for the thesis. Applicants approved in 1960 or before who have not yet submitted their theses may take advantage of this if they care to do so. The Board will then comment upon the suitability of the title and contemplated plan of attack.

It becomes evident from this that the applicant should apply as early as possible, since in the event that the first thesis proposal is rejected he will have ample time to submit another without losing a year in the process.

The case report requirement in recent years has been 15 different cases. Each one must have three complete sets of records, one taken at the beginning of treatment, another at the end of treatment, and a third set a year and one-half or more after *all* retentive devices have been removed. A set of records consists of plaster models, frontal and lateral face photographs, and intraoral roentgenograms. Cephalometric roentgenograms may be submitted but are not required; if they are submitted, some form of interpretation, such as measurements or tracings, should also be submitted.

The only exceptions to these case report requirements are as follows: If one has intraoral roentgenograms at the end of treatment, he need not submit a third set a year and one-half or more out of retention. On the other hand, if he failed to get intraoral roentgenograms at the end of treatment, a set concurrent with the third set of records will be accepted. Furthermore, should there be the occasional loss of face photographs or roentgenograms, the case is not necessarily thereby barred from inclusion. However, in the write-up which should follow the outline provided by the Board, specific mention of this omission should be made, citing the circumstances behind the omission.

Another question is prompted by the requirement that the cases should be a year and one-half or more out of retention: "Is it not possible to include the occasional case which seems to require permanent retention?" A few such cases can be included, provided in the write-up the reason for the necessity of this permanent retention is spelled out.

The oral interview is quite varied and flexible in nature, and this is one of the reasons why it is included. It may cover a variety of subjects, but one can count on being questioned to some extent concerning the cases submitted and the treatment thereof, and one may expect to be quizzed as well on the diagnosis and treatment of certain other cases which the Board has in its files, with slides of the customary clinical records projected on the screen. The candidate's thesis, which was read in December by the Board, is also very likely to provide some basis for questioning.

Every year with every candidate the President of the Board admonishes him not to be nervous, and this is the only instruction from the Board to

candidates which is consistently disregarded. However, once the examination is over, candidates frequently tell the Board they felt they were nicely treated, and the Board is therefore resigned to the fact that a certain amount of nervousness is probably inevitable and hopes it does nothing to make it any worse.

For a certain number of candidates, the receipt of a framed diploma from the American Board of Orthodontics is not the end of the story. Each year somewhere between 15 and 20 of the candidates who have submitted outstanding clinical work in their case reports are invited to put this on display at the annual meeting of the American Association of Orthodontists the following year. This has become not only an honor for these capable clinicians but a distinct asset to the program of the American Association of Orthodontists and a boon to the American Board of Orthodontics. It is a highlighted feature of the American Association's meeting, since it attracts a great deal of favorable comment, and frequently orthodontists may be seen to spend literally hours examining the cases, the write-ups, and the plans of treatment. One visitor from Europe at the recent Washington meeting made the statement that this exhibit alone justified his trip to the United States. The American Board of Orthodontics profits from this exhibit in that potential candidates of future years have an opportunity thereby to study the kind of work which is being submitted to the Board and deciding for themselves whether or not they are prepared at the moment to present themselves for examination. It is quite possible that if this exhibit were not a part of each annual meeting, there would be men who in good faith submitted themselves for examination at a time when they were not yet ready for it, thereby leading to disappointment which is now avoided.

For other individuals, there may be the additional distinction over and beyond certification of having had one's thesis recommended to the editor of the AMERICAN JOURNAL OF ORTHODONTICS for publication. Besides this, one thesis each year is selected by the program chairman of the annual meeting of the American Association of Orthodontists for reading before the membership one year after the candidate has become a diplomate.

Once a thesis is submitted, it should be regarded as the property of the American Board of Orthodontics, and there are definite rules regarding its dissemination. The secretary of the Board should be contacted if one has any plans for presenting it before a meeting or having it published.

The Board will not accept any application after March 1 of the year in which the application is to be reviewed by the Board, but a still better plan is for every candidate to submit his application as early as possible in order to allow ample time for review of thesis title and outline as spelled out above.

Orthodontic Profiles

MICHIGAN IS PROUD OF DR. OLIVER W. WHITE

The Journal of the Michigan State Dental Association pays tribute to a pioneer orthodontist of the state of Michigan.

TOO often we take the advancement of the profession for granted, quite unmindful of the people and the enterprise that brought it about. For forty years the First District Dental Society in Detroit has been nationally recognized as a most outstanding and progressive organization. Through the years, the influence of this group has spread throughout the state to elevate the standards of dental practice and has served as a stimulus to the advancement of dentistry in all parts of this country. Few realize that the attainments of this group have been due largely to the vision and enterprise of a prominent orthodontist, now practicing in the David Whitney Building in Detroit, Dr. Oliver W. White, the subject of this sketch.

For fifty-seven years he has practiced his specialty in Detroit and, in addition, has made an outstanding contribution to the dental profession. "O W," as he is affectionately known, has a remarkable capacity for projecting altruistic and progressive movements of wide significance and the organizational ability to carry them out. He has given a lifetime of service, far beyond the call of duty, for the good of others. The extent of his influence cannot be measured or adequately portrayed, but some of his accomplishments may well be recalled, lest we forget.

He was Canadian born, in Chatham, Ontario, January 4, 1876. His father was for many years a magistrate in Chatham and was prominent in provincial politics. His paternal grandparents came to Canada from England and his maternal family came from Scotland and North Ireland. They were prominent people who were well known in the community. His mother, who lived to 99 years of age, was a graduate of Whitby Girls College in Toronto.

There were seven children in the family, three of whom died in early infancy. One brother studied medicine at Toronto and became an outstanding physician in London, Ont. One sister married Dr. Willard Flint, a prominent orthodontist in Pittsburgh. The other married Dr. Albert Hicks of Chatham. Their son Hilliard is now a practicing orthodontist in Detroit.

In his youth Oliver attended the public schools and a local Collegiate Institute in Chatham. He played lacrosse and was fond of bicycling. He frequently made "century tours." One of his boyhood friends was Jim Couzens who later became a senator from Michigan and played an important role in the

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life of Oliver. For a time he worked in the store of a druggist, who was a close friend of the family. He became so interested in drugs that he matriculated in the Royal College of Pharmacy in Toronto. However, before he entered college, he was persuaded by his family's physician to study dentistry instead, a most fortunate circumstance for Detroit and dentistry.

"O W" entered the College of Dentistry at the University of Michigan in 1895 and after graduation, in 1898, remained at the school for 18 months of postgraduate study. During this period he served as an assistant to Dr. Lombard in physiology and Dr. Huber in histology, teaching the dental students in these subjects. He also carried on animal research in the field of arsenical poisoning. While in college he was a close friend of Dr. Chalmers Lyons, who later became a noted oral surgeon. One summer vacation they toured Ontario as salesmen for an advertising project, which was not too successful but taught them much about life.

At the completion of his postgraduate study, Dr. White received the degree of D.D.Sc. and began the general practice of dentistry in Detroit. In 1900 he opened his first office, located at the corner of Woodward Ave. and the Boulevard. One year later he married Olive Luick, whom he knew and courted during his college days while she was a student in the School of Music in Ann Arbor. She has been a great source of encouragement to him through the years. They have one son, Ward Wilson White, who is now a manufacturer of commercial plastic products.

Through his friendship with Dr. Milton Watson, who was then the only practicing orthodontist in Michigan, he became interested in that specialty and enrolled in the second course of training offered by Dr. Edward Angle of St. Louis, Missouri. After completion of his training, Dr. White returned to Detroit to open an office in the Fine Arts Building for the practice of orthodontics, where he remained until 1930, at which time he moved to his present office in the David Whitney Building.

During the early years of his specialized practice, orthodontics was not well known or greatly in demand. For seven years, Dr. White traveled to Kalamazoo to treat patients in the office of Dr. Edgar Honey. Moreover, he conducted practices in Albion and Ann Arbor in addition to his Detroit practice. For ten years he and Dr. Watson were the only orthodontic specialists in Detroit and the state.

Very early in his professional career, Dr. White became active in dental society affairs. At that time the profession was not well organized and dentists were not mutually cooperative. There was much jealousy and secretiveness among the members of the profession which made for dissension and misunderstanding. This was a grave concern to Ollie and he determined to do something to break down the existing frictions and professional disharmony.

In 1908, when his friend Dr. Edward B. Spalding was president, they induced the State Society to hold the annual meeting on board a steamer, for a trip through the Great Lakes. They believed that if a considerable number of dentists lived together on an enjoyable cruise they would get to know each other better and become more friendly.

This was a bold venture, not without grave risks. Dr. White personally underwrote the project to the amount of \$4,000, which was a considerable sum in those days. The trip was held as planned and was a great success. Not only was a good program presented but, as predicted, those who went on the trip became fast and enduring friends. This marked the beginning of the cordial and cooperative relationships between Michigan dentists which has existed ever since—a most significant contribution to the professional life of the state.

A second boat trip to the "Soo" was held in 1929 when Dr. Percy Lowery was president. This was also a great success. On both of these cruises Dr. White was the organizer and "Commodore."

However, Ollie was not satisfied. He saw new problems to meet and new fields to conquer. At that time, dental society meetings were largely composed of clinics given by dentists who had devised independently some personal technic and who were not well grounded in the fundamental principles involved. There were then no postgraduate courses, other than what dentists could learn by visiting other offices. Clinicians were often quite unaware of the contributions of others in their field.

For some time Dr. White toyed with the idea of group study for dentists to elevate the standards of practice. He deplored the idea that college training was an end to professional growth and believed that dentists should continue to advance themselves in the arts and sciences of their vocation. This he believed could be accomplished through cooperative group study of the various branches of dental practice.

In the Fall of 1914, Dr. White brought together a group, consisting of Drs. E. B. Spalding, A. L. LeGro, W. A. Giffen, M. L. Ward, H. C. Raymond, C. H. Oakman and R. W. Bunting, to discuss the feasibility of organizing a study group. Out of the conference, the Detroit Clinic Club was begun. It had six sections: Crown and Bridge, Porcelain Crowns, Direct Inlay, Prosthodontia, Surgery, and Prophylaxis and Pyorrhea. The purposes of the Club were two-fold: to develop the knowledge and skills of its members and to disseminate the newer developments in dentistry to the profession at large. The above named group became its founders.

From its inception, the Detroit Dental Clinic Club has been most successful and has developed into the most outstanding postgraduate study group in this country. For ten years Dr. White acted as its director. Since then it has continued to function uninterruptedly under his beneficent guidance as an active agency of continuing education.

During the years the Detroit Clinic Club, either as a whole or in parts of its membership, has given a thousand or more clinics in Michigan and various parts of the country. Major programs were given in New York, New Jersey, Ohio and Pennsylvania. In 1934 a two Pullman carload of dentists was taken to New York City where the Club gave clinics for four days at the greater New York meeting. It was so successful that the trip was repeated, on request, the succeeding year.

The effects of the Clinic Club and the good that it has accomplished in the lives and effectiveness of thousands of dentists cannot be estimated. Its influence

has extended far beyond the state, and its methods have been adopted by other states. However, in no other states have the projects been so successful or so long sustained. Perhaps this is due to the lack of a guiding hand as competent as the Detroit Clinic Club founder.

In addition to the Clinic Club, Dr. White was active in other dental society affairs, serving as president of the First District and the Michigan State Societies. However, his major interest was in the care of the indigent and underprivileged children. He was a member of the Metropolitan Health Council of Detroit and during the depression acted as chairman of the Dental Aid Commission. He was also chairman of the Medical, Dental and Nursing activities of the Federal Emergency Relief. For several years this Committee supervised the distribution of federal funds for health services to citizens of Detroit and Wayne County who were unable to pay for medical, dental or nursing services. This was a remarkable contribution to health during the depression.

Another great contribution made by Dr. White arose from his boyhood friendship with Senator James Couzens. During the years in which they both lived in Detroit they were close friends and played golf together. Through this association the senator was interested in the need for orthodontic treatment of underprivileged children in the Home for Crippled Children, which he had built at Farmington. Dr. White induced him to send children having malocclusions to the Children's Hospital in Detroit, where they would receive orthodontic treatment under his direction.

The fund which was set up by the Senator for this clinic in 1927 still continues to support the orthodontic service for crippled children in the Children's Hospital. All through the years that have intervened Dr. White has personally conducted the clinic, and also has directed the general dental services of the Hospital. In addition to his large orthodontic private practice, he still devotes three half days a week to the Hospital Clinics. Thirty-three years of charitable endeavor is a long, long time.

Two years after the beginning of the orthodontic clinics, Senator Couzens made a major grant to be known as "The Children's Fund of Michigan." On May 1, 1929 he donated \$10,000,000 to initiate a 25 year project which, later, he amplified by \$1,800,000. This Fund was intended to be used in the care of indigent and underprivileged children.

Dr. White acted as chairman of the Dental Advisory Committee of the Children's Fund throughout the 25 years of its existence. One of the early projects was the establishment of a dental clinic for underprivileged children in the Children's Hospital, which still continues to function under Dr. White's supervision. By the establishment of free clinics in Detroit and throughout the State, thousands of children received much needed dental care which their parents could not afford. During the 25 years of its existence, The Children's Fund spent two and one-half million dollars for dental services for children.

As a part of the project, he secured an appropriation from the Fund which made possible the Michigan Dental Caries Studies at the University of Michigan, studies which have had such far reaching significance in dental caries control.

In addition to his many and varied professional interests, O. W. White has been a good citizen. He has been a member of the Board of Commerce, the Citizens' League, the Founders Art Society, the Economic Club of Detroit, the Detroit Historical Society and the Torch Club. He is an associate member of the Wayne County Medical Society and an honorary member of the Toledo Academy of Medicine.

In his special field he has held all of the high offices, and for seven years was director of the American Board of Orthodontics. He is also a member of the Michigan Society of Dentistry for Children. He has contributed many papers and clinics in the field of orthodontics.

"O W" has received many honors. His own State Society has twice recognized him for distinguished service, once in 1917 and again in 1954, when he was named "Dentist of the year." The Detroit District Society honored him in 1944 and again in 1955. The Detroit Clinic Club held a dinner in his honor on its 25th anniversary in 1940 and presented him with a bronze plaque.

In 1935 he was made a Fellow of The American College of Dentists, and in 1937 a Fellow of The International College of Dentists. He also is a Fellow of The Pierre Fauchard Academy. In 1940, at the dedication of The W. K. Kellogg Graduate and Postgraduate Institute, the University conferred the degree of Master of Science on him, in recognition of his contributions to post-graduate dental education. In addition, he is a member of Omicron Kappa Upsilon.

Full as his life has been with his many professional and civic interests, Ollie has taken time to play. One wonders when. He is an active member of the Detroit Golf Club, The Detroit Athletic Club, The Detroit Boat Club, and The Pine Lake Country Club. Golf has been, perhaps, his favorite sport.

In addition, he has taken time for social contacts with a host of close friends. Many of them occupy high places in the social and professional life of Detroit. His kindly and gracious presence has attracted the love and respect of large numbers of people in all walks of life. He is held in high regard in the city, but his greatest satisfactions have come from the many personal contacts he has had with young men whom he was able to encourage and help. So many have reason to be very grateful for so much he has done for them.

So runs the story of a man who has devoted his life to worthwhile achievement and to the service of his fellow man. He had much to offer and he has given to the fullest extent. Perhaps the story can best be epitomized by a toast offered to him by a friend at the occasion of a recent birthday:

*"If I were an artist, a Michelangelo,
I'd paint a picture of a man I know,
I'd hang it in the sky that all might see
The visage of love and fraternity:
Ollie White."*

—R. W. Bunting, D.D.S.

Dental Specialties

FOREWORD

WHEN the Council on Dental Education of the American Dental Association proposed comprehensive new regulations for the supervision of specialty organizations and certifying boards, there followed a great deal of discussion, particularly among specialty groups everywhere.

Action was taken on the resolutions presented to the A. D. A. at its October, 1960, meeting in Los Angeles. B. F. Dewel of Evanston, Illinois, a member of the American Board of Orthodontics and at the same time a member of the Publications Board of the American Association of Orthodontists, was asked to make a factual report in order that members of the A. A. O. and readers of the *AMERICAN JOURNAL OF ORTHODONTICS* might know the present status of the over-all situation. Dr. Dewel's report follows.

In further pursuit of this subject, we are also publishing in this issue of the *JOURNAL* the report of the A. D. A.'s Reference Committee on Dental Specialties, Dallas R. McCauley's report on A. A. O. opposition to Resolution 2, and material reprinted from the *New York Journal of Dentistry* concerning new specialty practices in dentistry.

—Editor.

SPECIALTY ORGANIZATIONS AND THE AMERICAN DENTAL ASSOCIATION

B. F. DEWEL, D.D.S., EVANSTON, ILL.

WITHIN the last two years extensive new regulations for the supervision of specialty organizations and certifying boards have been recommended by the Council on Dental Education of the American Dental Association. They arose because of the concern of the Board of Trustees and the House of Delegates over a rapid increase in the number of dental academies and societies and the request by several of these organizations for Council recognition as specialty areas entitled to have their own certifying boards.

As an indication of its concern, the American Dental Association has called three conferences on this dental specialty problem. One on "National Organizations for Areas of Dental Practice" was held by the Board of Trustees on June 2 and 3, 1960. Additional conferences on "Dental Specialties and Specialization" were held by the Council on Dental Education on July 9 and 10, 1959, and on

Sept. 2 and 3, 1960. Each of these conferences was attended by approximately 100 delegates representing thirty or more academies, societies, associations, and certifying boards. The purpose of these conferences, in great part, was to present conclusions and recommendations previously arrived at by the Council.

Obviously, the new rules will apply also to the older established organizations and boards, such as the American Association of Orthodontists and the American Board of Orthodontics. Before new regulations become effective, however, councils must present them in the form of resolutions to be adopted by the House of Delegates of the American Dental Association. This report will be limited to those resolutions that are of greatest interest to orthodontists.

NEW RESOLUTIONS ON SPECIALTY PRACTICE

The following resolutions on specialties were presented at the Los Angeles meeting in October, 1960, by the Council on Dental Education:

Resolved, that after January 1, 1965, all members who announce themselves to the public as specialists or as limiting their practices in one of the areas approved by the American Dental Association be required to hold a certificate from a national certifying board approved by the American Dental Association or a state license permitting announcements in one of the areas approved by the American Dental Association.

Resolved, that the Judicial Council be requested to present an amendment to the *Principles of Ethics* incorporating the change not later than the 1964 annual session of the House of Delegates.

Resolved, that the Board of Trustees be requested to establish appropriate rules for the *American Dental Directory* so that no additional dentists may be designated as specialists in that publication after January 1, 1965, unless they have complied with the requirement of this resolution: certification by a national certifying board approved by the American Dental Association.

Resolved, that the number of areas of dental practice be limited to the minimum number which will assure the public of the competence of the dentist who holds himself out to the public as a specialist and who performs services of an unusual or difficult nature which require intensive study and extended clinical and laboratory experience beyond the accepted undergraduate training of the dentist.

Resolved, that the House of Delegates continue to recognize for a reasonable period the following areas of dental practice: oral surgery, orthodontics, pedodontics, periodontics, prosthodontics, oral pathology, and dental public health.

Resolved, that the national certifying boards of these seven areas of dental practice be directed to present to the Council on Dental Education, as a condition of approval by the House of Delegates under the "Requirements for National Certifying Boards in Special Areas of Dental Practice," as revised in 1959, an acceptable definition of the scope of their areas and evidence that a majority of their diplomates restrict their practices full time to those areas.

Resolved, that until the requested reports have been considered, the moratorium on the establishment of new certifying boards be extended to the annual session in 1961.

REVISION OF PRINCIPALS OF ETHICS

A supplementary resolution presented in October by the Judicial Council revises Section 18 of the *Principles of Ethics*. A further revision of Section 18 to conform to the 1965 regulations on limited practice announcements is to be presented for adoption in 1964. Section 18, as revised this year, reads as follows:

Section 18. Announcement of Specialty Practice. A dentist who limits his practice to an area of dentistry may include that information in his cards, letterheads, announcements, and directory listings, consistent with the custom of the dentists of the community, if the following conditions are met:

1. The indicated area of dentistry must be one for which there is a certifying board approved by the American Dental Association.
2. The dentist's practice must be limited exclusively to the indicated area of dentistry.
3. The dentist must be a diplomate of a certifying board approved by the American Dental Association for the indicated area of dentistry; or he must be a member of, or be eligible for membership in, a specialty society officially related to a certifying board approved by the American Dental Association for the indicated area of dentistry; or he must have a state license in the indicated area of dentistry if he practices within a state which licenses dentists who engage in specialty practice.

The use of the words "specialist," "specializing in," or similar descriptions in directory listings should be discontinued within a reasonable time after this principle is promulgated.

DERIVATION OF AUTHORITY FOR THE COUNCIL ON DENTAL EDUCATION

The Council on Dental Education derives its authority to investigate and regulate certifying boards and related specialty organizations from an amendment to the Bylaws of the American Dental Association. The following resolution, adopted in 1959, adds this subsection on Council duties:

To study and make recommendations on (1) the recognition of special areas of dental practice; (2) the approval or disapproval of national certifying boards for special areas of dental practice; (3) the educational and administrative standards of the certifying boards; and to act on behalf of this Association in maintaining effective liaison with the certifying boards and related special groups.

COUNCIL STATEMENTS ON BASIC POLICY FOR SPECIALTIES

As a result of this authority, the Council prepared a statement on basic policy for special areas of dental practice, certifying boards, diplomates, and specialists in dentistry. A 1959 resolution approved the following statement of policy to provide the Council with guidance in developing its specialty program in dentistry:

1. Specialists and specialties are identified in a profession for the primary objective of protecting the health and welfare of the public and for no other primary purpose.
2. Specialization, by nature and definition, demands full-time or exclusive attention from the specialist.
3. A practitioner may have every qualification of the specialist, but as long as he does not hold himself out to the public as a specialist he does not expose himself to legal, professional, and ethical sanctions.

The Council also set up requirements for special areas of dental practice and for national certifying boards. For this purpose, it established the following general policy statement:

In general, the division of the practice of dentistry into special areas depends upon a logical separation of dental services into categories characterized by fundamentally different objectives and distinct biological and physical approaches to diagnosis or treatment, involving knowledge and skills beyond those which can normally be expected for the general practice of dentistry, rather than on a fragmentation of dentistry based upon technics or procedures.

To further explain its position in determining the requirements for the announcement of a limited practice, the Council comments as follows:

While the Council recognizes that the requirement of membership in, or eligibility for membership in, a specialty society related to a national certifying board is desirable because of the present status of education for specialist practice, the Council is not satisfied that this should be an ultimate requirement for specialty practice when improved educational facilities and opportunities are available. The Council believes that this requirement should eventually be eliminated so that the announcement of a specialty practice would require the possession of a certificate from a national certifying board. Because this objective is not immediately achievable, the Council believes that members of the profession should now be made aware that the additional requirement of having a certificate from a national certifying board will be mandatory in 1965 as a prerequisite for announcement as a specialist.

REQUIREMENTS FOR SPECIAL AREAS OF DENTAL PRACTICE

The Council is concerned over what it variously terms fragmentation, over-segmentation, and splintering of dental practice into a multiplicity of specialty areas to the detriment of dentistry as a whole. In order to establish a general policy, the following requirements have been created for the approval of specialty areas in dental practice prior to the recognition of a national certifying board in any single area:

1. The area shall be one which is important in the protection of the health and welfare of the public.
2. The area shall represent a substantial field of practice which calls for special knowledge and skills requiring intensive study and extended clinical and laboratory experience beyond the accepted undergraduate training in order to perform services of an unusual or difficult nature.
3. The area shall be one in which approved universities, dental schools, or teaching hospitals have developed a sufficient number of formal courses so that opportunities for postgraduate education and experience are available to those seeking programs of education in this special area.
4. The area shall be one in which public and professional need for such special services shall have called into existence a sizable number of practitioners whose knowledge and skills are readily available.
5. The area shall be one in which the dentist refers patients or seeks consultation in order to provide a special health service.
6. The area shall be one in which there is evidence that a significant number of dentists are devoting the full time of their dental practices to the special area.
7. The area shall be one in which a significant number of scientific papers and clinics has been presented or in which an increasing number of high quality scientific papers or clinics is being presented.

There is no question but that the specialty of orthodontics meets all the requirements for special areas of dental practice as specified by the Council on Dental Education. They are listed here as a point of information so that orthodontists will be aware of the requirements placed on all specialty groups. None of these new regulations are retroactive for men already in specialty practice.

REQUIREMENTS FOR NATIONAL CERTIFYING BOARDS

The Council next turned its attention to the regulation of the various certifying boards. The seven presently recognized specialty boards are oral

pathology, oral surgery, orthodontics, pedodontics, periodontics, prosthodontics, and dental public health. An attempt has been made to establish minimum standards for certification, some of which are contrary to current policies of the American Association of Orthodontists and the American Board of Orthodontics. The following provisions are given under the general heading of "Requirements of National Certifying Boards":

Operation of Boards

1. Each board shall certify qualified dentists as diplomates only in the special area of dental practice approved by the American Dental Association for such certification.
2. Each board, except by waiver permit of the Council on Dental Education, shall give at least one examination in each calendar year and shall announce such examination at least six months in advance.
3. Each board shall maintain a current list of its diplomates and of those who announce themselves as specialists in its area.
4. Each board shall submit annually to the Council on Dental Education data relative to its financial operations, applicant admission, and examination procedures and results thereof.
5. Each board shall maintain a current list of advanced courses and programs acceptable to it and approved by the Council on Dental Education for fulfilling the educational needs of its candidates.
6. Each board shall provide periodically to the Council on Dental Education evidence of its promotion of effective continuing educational programs in its area or evidence that this activity is being effectively conducted by other agencies or institutions.
7. Each board shall provide periodically to the Council on Dental Education evidence of its examination and certification of a significant number of additional dentists in order to warrant its continuing approval by the American Dental Association.
8. Each board shall conduct periodic reviews to provide assurance that its diplomates continue to meet the qualification standards of the board and shall report the results of such reviews to the Council on Dental Education.
9. Each board shall bear full responsibility for the conduct of its program, the evaluation of the qualifications and competence of those it certifies as diplomates, and the issuance of certificates.

Certification Requirements

1. Each board shall use, in the evaluation of its candidates, standards of education and experience approved by the Council on Dental Education.
2. Each board shall require for eligibility for certification as a diplomate a minimum of two academic years of postgraduate study in recognized institutions, or two calendar years of postgraduate study if the programs involve hospital training. Until January 1, 1967, candidates entering the preceptorship program operated by the American Association of Orthodontists may have the study and training of such program accepted as a substitute for a formal education program.
3. Each board shall require a minimum of five years of practice primarily in the area for which it grants certificates. The years of formal or preceptorship education in this area may be accepted to fulfill this requirement.

Granting Certificates

1. Each board shall grant a certificate annually to each of its diplomates as evidence of fulfillment of all qualifications and requirements.
2. Each board shall require an annual registration fee from each of its diplomates intended to assist in supporting financially the continued program of the board.

OTHER COUNCIL ACTIVITIES

In addition to these items of particular interest to the orthodontist, the Council on Dental Education is concerned with many other aspects of dental practice. Its primary responsibility is the evaluation and accreditation of dental schools. During 1960 it will have visited twenty-four of the forty-seven dental schools in its continuing study of the problems of dental education. Among its other duties are such diversified projects as the expansion of auxiliary personnel, conferences on dental licensure, accreditation of internship and residencies in hospitals, prospective enrollment in dental schools, licensure programs for dental hygienists, education and certification of dental assistants, dental aptitude testing, supervision of related groups, such as the dental laboratory technician schools, and issuing approximately forty publications on its continuing programs. Thus, the Council on Dental Education is concerned with many projects in addition to that on specialism in dental practice.

CONVENTION ACTION

Action on the 1965 resolution restricting specialty announcement to board diplomates was postponed for one year. The 1964 amendment to the *Principles of Ethics* and the new rules for specialty announcement in the *American Dental Directory* were also postponed for one year. The remaining resolutions were passed by the House of Delegates.

REFERENCES

1. Dewel, B. F.: A Preliminary Report on the Council on Dental Education's Conference on Dental Specialties and Specialization, AM. J. ORTHODONTICS 45: 600-602, 1959.
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3. Salzmann, J. A.: Specialization and Specialty Boards in Dentistry, AM. J. ORTHODONTICS 45: 861-865, 1959.
4. Anderson, George M.: President's Address, American Association of Orthodontists, AM. J. ORTHODONTICS 46: 321-329, 1960.
5. Dewel, B. F.: Specialty Practice in Dentistry, AM. J. ORTHODONTICS 46: 588-594, 1959.

REPORT OF REFERENCE COMMITTEE ON DENTAL SPECIALTIES

COUNCIL ON DENTAL EDUCATION

Annual Report (sections on dental specialties only): The Reference Committee has studied the report of the Council on Dental Education as it pertains to dental specialism and the dental specialist (*Reports: 13*) and commends the Council on its continued efforts to find suitable solutions to the problems of specialization as they relate to the general practice of dentistry. The Reference Committee has taken special note of, and concurs with, the recommendation of the Council on Dental Education "... that the private system for regulating and advancing specialty practice within dentistry is preferable to the legal system under state dental laws ... and believes that constituent societies, in states not having statutes for the recognition of specialists in the practice of dentistry, should be requested not to initiate or support legislative proposals for this purpose at the present time" (*Reports: 15*). This Committee has made note of

the Council's continuing study of the problem of defining areas of dental practice and encourages its further study of this problem to enable more definite recommendations to the House of Delegates.

Dental Specialism and the Dental Specialist: The Reference Committee endorses, in principle, Resolution 2 as submitted by the Council on Dental Education (*Reports: 36*) but recognizes certain problems of integration among the specialty groups. It is the Committee's opinion that these problems can be reconciled through conferences between a subcommittee of the Council and representatives of the various specialty groups, and the Committee recommends postponement of action on Resolution 2 until the 1961 annual session.

214. *Resolved*, that after January 1, 1965, all members who announce themselves to the public as specialists or as limiting their practices in one of the areas approved by the American Dental Association be required to hold a certificate from a national certifying board approved by the American Dental Association or a state license permitting announcement in one of the areas approved by the American Dental Association, and be it further

Resolved, that the Judicial Council be requested to present an amendment to the *Principles of Ethics* incorporating this change not later than the 1964 annual session of the House of Delegates, and be it further

Resolved, that the Board of Trustees be requested to establish appropriate rules for the *American Dental Directory* so that no additional dentists may be designated as specialists in that publication after January 1, 1965, unless they have complied with the requirement of this resolution: certification by a national certifying board approved by the American Dental Association.

The Chairman moves the postponement of action on this resolution until the 1961 annual session.

Study of Areas of Dental Practice: The Reference Committee has considered the resolution submitted by the Council on Dental Education on the number of areas of dental practice (*Reports: 36*, Res. 3) and recommends the adoption of its resolution.

215. *Resolved*, that the number of areas of dental practice be limited to the minimum number which will assure the public of the competence of the dentist who holds himself out to the public as a specialist and who performs services of an unusual or difficult nature which require intensive study and extended clinical and laboratory experience beyond the accepted undergraduate training of the dentist.

The Chairman moves the adoption of this resolution.

Definition of Areas of Dental Practice: The Reference Committee has considered the action of the Council on Dental Education concerning the recognition of various areas of dental practice and the definition of the scope of their areas. After determining that the Council is prepared to receive and consider applications for other special areas of dental practice, the Committee recommends that Resolution 4 (*Reports: 36*) be amended by the deletion of the third clause, "*Resolved*, that until the requested reports have been considered, the moratorium on the establishment of new certifying boards be extended to the annual session in 1961."

216. *Resolved*, that the House of Delegates continue to recognize for a reasonable period the following areas of dental practice: oral surgery, orthodontics, pedodontics, periodontics, prosthodontics, oral pathology and dental public health, and be it further

Resolved, that the national certifying boards of these seven areas of dental practice be directed to present to the Council on Dental Education, as a condition of approval by the House of Delegates under the "Requirements for National Certifying Boards in Special Areas of Dental Practice," as revised in 1959 (*Trans.* 1959:204), an acceptable definition of the scope of their areas and evidence that a majority of their diplomates restrict their practices full time to those areas.

The Chairman moves the adoption of the amendment.

The Chairman moves the adoption of the amended resolution.

RESOLUTION 23 OF JUDICIAL COUNCIL

Revision of Section 18 of "Principles of Ethics": The Reference Committee has reviewed the revision of Section 18 of the *Principles of Ethics*, proposed by the Judicial Council (*Reports*: 106, Res. 23), and recommends adoption of the resolution.

217. *Resolved*, that the revision of Section 18 of the *Principles of Ethics*, entitled "Announcement of Specialty Practice" be approved.

The Chairman moves the adoption of this resolution.

(Signed) *David E. Hunn*, New York

Allen M. Ito, Hawaii

John W. Knutson, Public Health Service

Carl J. Stark, Ohio

Wilbur D. Johnston, Chairman, Connecticut

REPORT OF A.A.O. OPPOSITION TO RESOLUTION 2,
REFERENCE COMMITTEE ON DENTAL SPECIALTIES, 1960 ANNUAL
MEETING OF THE AMERICAN DENTAL ASSOCIATION AT
LOS ANGELES

FOLLOWING receipt of Secretary Shepard's letter alerting our members to the Council on Dental Education's Resolution 2, 110 of the enclosed postal cards were returned. As they arrived between October 10 and October 15, answers stating place and time of the preliminary meeting were returned by air mail. In addition, the secretary of the Southern Component of the Pacific Coast Society of Orthodontists sent notices of the urgency of the situation to all members of that group.

On Monday, a caucus of representative members of the American Association of Orthodontists was held to discuss the matter and arrive at a suitable plan of action.

In order that a unified front of the specialties might be obtained, efforts had been made to have a joint meeting with the oral surgeons and the pedodontists. Such a meeting was arranged for lunch on Monday and was attended by the following:

American Society of Oral Surgeons: Fred A. Henney (past president); Edward C. Thompson, vice-president; Lyall O. Bishop, president-elect; Leroy W. Peterson, treasurer; and Leslie M. Fitzgerald, past president and member of the Council on Dental Education.

Pedodontists: William E. Brown, past president, and James Simmons, president of the American Society of Dentistry for Children.

Orthodontists: Bill Smith, Nathan Gaston, Oren Oliver, Bill Altstadt, Bill Giblin, and Dallas McCauley.

After discussion, it became evident that there was general agreement that the resolution as written should be modified to make it more practical and to avoid causing conflicts and problems. All agreed that postponement was desirable. A spirit of common effort and purpose was evident. A basis for mutual action on Tuesday was established.

At 8 o'clock on the following morning, Tuesday, the A.A.O. preliminary meeting for briefing of members on the background, past actions, and plan of procedure was held by President Humphrey, who had arrived late Monday evening. Discussion, questions, and answers consumed the time available. Shortly before 9 A.M. we adjourned to go to the Reference Committee meeting. The room assigned (capacity, 250) for this meeting was quickly filled. Nathan Gaston gave an excellent presentation of the protest from the Southwestern area. Oren Oliver presented an effective protest relating the fact that the Council on Dental Education had "put the cart before the horse" in that attempts at specialty regulation had been made before proper C.D.E. supervision of postgraduate educational facilities and programs had been accomplished. Fred Henney presented the official instructions from the American Society of Oral Surgeons, which were to the effect that they accepted the general principle of Resolution 2, but with certain reservations to be adjusted. This was tantamount to asking for a postponement. B. O. A. Thomas, president of the American Board of Periodontology, spoke in opposition to immediate passage of Resolution 2, as did also William Brown, General J. L. Bernier, and others. President Humphrey concluded our opposition most effectively with a strong brief statement.

The delegation from the twelfth District of the American Dental Association required their trustee, Pat Eiler (who is also a member of the Council on Dental Education), to appear before the committee and oppose the resolution. Outside of the members of the Council on Dental Education, there was little opposition to postponement of Resolution 2.

Early Wednesday morning, Charles Patton, then president-elect of the A. D. A., obtained for President Humphrey an official report, a mimeographed copy of the report of the Reference Committee on Dental Specialties as prepared for the delegates. In this report to the House of Delegates, the committee had recommended that Resolution 2 be postponed for action until the 1961 annual session.

Preparation was then made for (our) delegates to carry the fight for postponement to the floor of House of Delegates if any effort to reverse the recommendation of the committee was made. Fortunately, this precaution was not necessary, as on Thursday morning the House of Delegates adopted the recommendations of the Reference Committee. Action on Resolution 2 was postponed until the 1961 annual session.

Dallas R. McCauley

ARE NEW SPECIALTY PRACTICES IN DENTISTRY NECESSARY?*

The question whether or not new specialty practices should be created in dentistry is implicit in the announcement that the specialty moratorium should be extended for another year. The suggestion, not to lift the 1959 moratorium now in effect, has twofold significance for the unity of dental practice. First, dental leadership now recognizes that more time is needed to study the specialty problem, and its implications, before the policy statement of 1959 becomes final. Second, the specialty problem is now sharply delineated, namely, the proclamation clarifies that the issue concerns the creation of new specialty practices.

The *ADA Newsletter*, in the announcement "Council to Recommend Continuation of Specialty Moratorium," indicated that the Council on Dental Education will "recommend that the House of Delegates reaffirm its approval of the presently recognized seven specialty areas. At the same time the Council will recommend that the moratorium on recognition of new specialties be continued for another year." (June 15, 1960)

There appears to be no clear understanding of the purpose of the moratorium. This may be noted by the imposing, lifting, reimposing, and extending the moratorium from 1954 to the present. In the presidential report to the House of Delegates at the Centennial Session of the American Dental Association in 1959, I directed attention to the need for a thorough study of the specialty question by the profession. I stressed the importance of considering the many facets of the new specialty issues in all deliberations:

"There is too much at stake for our profession, which up to now has paid too little attention for so many years to the basic problems of its specialties, to come up with an equitable answer in less than one year. I am convinced that all segments of the profession have not been able to study the proposed policy-program in detail. This program involves many serious external relationships, as well as internal ones." (ADA *Trans.* 1959:12—*NYJD*, Nov. 1959)

The findings of the *NYJD* nationwide Survey provide some answers on two issues, which are closely related to the policy of the Council on Dental Education of the American Dental Association that too many specialties may result in the dismemberment of dentistry through "overspecialization." Our Survey also warrants the opinion that the consensus is not to create *new* specialty practices beyond the present seven, and to establish a ceiling on the number of specialties in dentistry.

A review of the comments by the respondents to our "Opinionaire" would seem clearly to indicate that the profession at large is not adequately and fully informed about the intricacies of the specialty problem. Furthermore, there still exists considerable confusion regarding the distinct objectives of research organizations to advance dental knowledge and the purpose of specialty academies in the field of dental practice. There also remains the unanswered question regarding the scope of general practice, and its relation to the dental specialist-consultant. Many more facets of the specialty problem need careful study before any decision is reached in disentangling the specialty dilemma. The value of the certifying Boards in determining competency is a problem distinct from the issues under consideration here.

It seems clear that the sentiment is against the creation of new specialty practices now, and for the establishment of a ceiling to limit specialties to the present seven. The question as to what should be done about rearranging the recognized specialties, is a matter for later consideration. To obtain a broad

*Reprinted from *The New York Journal of Dentistry*, vol. 30, No. 8, pp. 278-279 and 294, 295, 296, October, 1960.

consensus of the profession, it might be suggested that each state dental society poll its membership on these issues to determine prevailing opinion.

At Los Angeles, farsighted leadership may be demonstrated by taking action (1) on rescinding the 1959 policy-statement, (2) on opposing new specialties practices, and (3) lifting the moratorium only after the profession has had ample time to decide on sound action on the internal and external problems we are facing by limitless specialization.

Percy T. Phillips

ATTITUDES OF DENTISTS TOWARD THE CREATION OF NEW SPECIALTY PRACTICES IN DENTISTRY: PRELIMINARY REPORT

Readers inquired regarding the attitudes of dentists in other parts of the country toward the creation of *new specialty practices* in dentistry beyond the seven specialty practices recognized by the American Dental Association (there are now seven certifying Special Boards recognized). In the absence of a clear indication of the national picture, it was felt desirable to determine the consensus of opinion on this fundamental and critical issue. The outcome of the action by the House of Delegates on this question is bound to affect the professional and economic status of the general dentist in family dental-practice and the welfare of the public.

Inasmuch as the general practitioner's experience in the health care of dental patients is considered a reliable guide as to the *kind* and the *number* of specialist-consultants he may need, an "Opinionaire" was circularized among practicing dentists. The public looks to general practitioners, who are charged with the responsibilities of preventing dental disease and promoting oral-health for the benefit of the patient's general well-being, recognizing that the dentist in general practice is the backbone of the dental profession.

Forms were also distributed to the officers of the A.D.A. and the Dental Society of the State of New York; secretaries of constituent State Dental Societies and State Boards of Dental Examiners; deans of dental schools and university dental teachers; editors of dental journals; and dentists active in professional affairs, located in the 13 A.D.A. Trustee Districts. Opinions were sought on the two immediate issues:

1. Do you favor the establishment of new specialty practices?
2. Do you favor a ceiling on new specialty practices?

Of a total of 800 questionnaires distributed, 168 (21 per cent) replies were received, as of August 25, 1960. The answers showed that:

- a. 91 percent are opposed to the creation of new specialty practices and favor a ceiling.
- b. 5 per cent favor the establishment of new specialty practices and are opposed to a ceiling.
- c. 2 per cent are undecided, giving various reasons.
- d. 2 per cent are opposed to new specialties and to a ceiling.

The responses reflect views of dentists in the 13 A.D.A. Trustee Districts and represent an adequate sample statistically—both professionally and geographically. The majority of respondents commented on both issues—some of which are given below.

In the light of the comments and the survey findings, attention is directed to Salzmann's approach to the problem of "Specialization in Dentistry" (*NYJD*, 1960, pages 195-197) in which he suggests improvements in the education, training, and status-recognition of the family dentist. John Oppie McCall responded

with a comment, in which he outlines *criteria* that should be applied to *all* who seek official A.D.A. recognition as specialist-consultants to the general practitioner. Charles F. Bodecker referred to his editorial comment, "The Narrowing Scope of the General practitioner" (*NYSDJ*, October 1951, pages 410-411) which answers the questions raised by the proposals to create *new specialty practices*.

The advance announcement by the Council on Dental Education that it plans to recommend the continuation of the 1958 moratorium on *new specialty practices* (now in effect) for another year, points up the importance of the issues posed in our "Opinionaire." The Council's notice is suggestive of possible action by the House of Delegates, at the Los Angeles A.D.A. annual session in 1960, on the following:

1. Lifting the 1958 moratorium in 1960 or continuing it to 1961.
2. Rescinding the 1959 *policy-statement* for recognition of new specialty practices.

The Council announcements also include a recommendation that the House members reaffirm the recognition of status, as applied to the already recognized specialty practices. In 1955, the *Journal* called attention to the intent of the moratorium to strengthen the Council's policy in preventing "fragmentation" of dental practice through over-specialization. The moratorium also considered the need for "a 'regrouping' of the seven Boards recognized by the A.D.A." (*NYJD*, May, 1957). The main objective of this survey was to determine consensus on *new specialty practices*. A final analysis and report on responses to the "Opinionaire" will be presented for the information of the profession at a later date.

SOME COMMENTS OF RESPONDENTS TO THE NYJD "OPINIONAIRE"

I am opposed to the creation of any further specialties in dentistry. There are altogether too many at present.—AHM, *New York*

There should not be over six or seven specialties.—CRA, *Tennessee*

The general dentist should remain the key to stomatological practice. A board of stomatology is utterly redundant.—EB, *California*

YES to question one, but only if the public needs to know who can be *expected* to render a better service in a special field than can be *expected* from a dentist in general practice.—COB, *Ohio*

I am against fragmentation of our profession especially when some of the present specialties do not even attend our A.D.A. meetings, but meet elsewhere.—CSR, *Montana*

Approve the seven presently recognized specialties. Should stress better dentistry in general practice.—JJW, *Tennessee*

Have not given this point (question one) much thought, but perhaps certain groups might warrant specialty ratings. All Chiefs and no Indians makes for trouble in the Tepee.—GEE, *Washington, D. C.*

I cannot answer this question (number one) without knowing *what* fields we are talking about. I would probably favor some new specialty areas.—BOAT, *California*

They ruin the standing of the general practitioner.—BCK, *California*

On question one—The Council on Dental Education is studying the need for other specialties but I think some groups asking to be recognized do not rate a specialty status. On question two—I would not wish to answer this question yes or no until the Council on Dental Education has made its final report.—JEA, *Pennsylvania*

I firmly believe that oral medicine and endodontics are an important part of general dentistry and should not be specialties.—JAB, *Conn.*

We are in great danger of overspecialization now—Much too many “conditions” are being treated rather than “patients.”—AS, *New York*

To question one—YES, if conditions indicate the necessity.—DEB, *Ohio*

On question *one*—There are altogether TOO MANY specialties now—there is no room for squeezing more segments from general practice under the guise of “specialization.” On question *two*—There is no need to reaffirm the status of the recognized specialty practices in clinical dentistry since they have not been challenged directly, although the seven specialties should be reexamined and reduced in number. *Public health* and *oral pathology* are hardly clinical specialties. Even we who may limit our practice to an area of clinical dentistry are not in favor of oversegmentation of our profession. A basic philosophy of specialization should be formulated to correct any mistakes of the past and to avoid those of the future.—JOO, *New York*

On question *one*—YES, if they meet the ADA requirements.—MKH, *Indiana*

On question *one*—YES, if the need of new specialties becomes apparent through actual demands in practice and consistent with the welfare of the public.—JEB, *Georgia*

On question *one*—dentistry is a specialty of medicine. Physicians accept no patients without referral from M.D. Why do dentists not follow this ethical practice when they specialize? On question *two*—Why belittle the family dentist by making a mouth traffic policeman out of him?—OJMcM, *New York*

On question one, NO. We are likely to specialize ourselves out of business.—CG, *Arkansas*

On question one, YES. I believe some procedures that require a high degree of efficiency and training beyond routine practice. No ceiling on new specialty practices.—DT, *New York*

Specialization is weakening dentistry and placing the family dentist in a secondary position. We must emphasize his importance as he is in truth the backbone of dentistry.—CFB, *South Carolina*

Editorial

THE LIAISON COMMITTEE ON SPECIALIZATION

REPRESENTATIVES from all seven specialties of dentistry that are recognized by the American Dental Association met with the Reference Committee on Specialization at the recent meeting of the A. D. A. in Los Angeles. The subject that attracted such wide interest was a resolution by the Committee on Dental Education of the A. D. A. that proposed certain educational requirements for certification of specialists in dentistry.

As a consequence of this conference, the Reference Committee, in a spirit of fairness, deferred action on the entire matter for one year. Subsequent to the action, President Humphrey of the American Association of Orthodontists appointed a new committee, known as the American Dental Association Liaison Committee, to take care of any problems that may arise between the A. A. O. and the A. D. A. The committee's immediate problem, however, seems to be the reconciliation of A. D. A. and A. A. O. views with regard to certification of specialists.

The new committee, made up of three past-presidents of the A. A. O., several past and current members of the American Board of Orthodontics, and the secretary of the A. A. O., is as follows:

Phillip E. Adams, Boston, Massachusetts
George M. Anderson, Baltimore, Maryland
Oren A. Oliver, Nashville, Tennessee
Frank P. Bowyer, Knoxville, Tennessee
B. F. Dewel, Evanston, Illinois
Earl E. Shepard, St. Louis, Missouri
William S. Smith, San Francisco, California
Nathan G. Gaston (Chairman), Monroe, Louisiana

This seems to be a timely move toward the solution of this troublesome question. The plan was created after a tremendous amount of work by the officers and committees of the American Association of Orthodontists who were given the responsibility of representing the Association.

According to one member of the committee who spoke up at the Los Angeles hearing, "The first thing that should be done is to set up standards for the various graduate schools and have the Education Council make a survey and approve or disapprove of them the same as they did the dental schools and

the same as they did on the hygienists problem." One of the duties of the committee obviously will be to take care of any problem that may arise between the A. A. O. and the A. D. A. The immediate problem, however, seems to be to come up with a plan for certification.

Orthodontics as a specialty has been in existence for about sixty years, and it will no doubt cooperate with organized dentistry to the fullest in setting up educational standards for specialties in the profession of dentistry. To get the full story, readers are urged to read Dr. B. F. Dewel's report and the report of the A. D. A.'s Reference Committee on Specialization, both of which appear in this issue of the JOURNAL.

Nothing but glowing reports are received concerning the cooperation of those who represented the A. A. O. and the Reference Committee on Specialties in Los Angeles. This, it would seem, indicates that sooner or later this problem will be worked out to the entire satisfaction of all concerned. *H. C. P.*

Report

THE AMERICAN ASSOCIATION OF ORTHODONTISTS GROUP DISABILITY INCOME INSURANCE PROGRAM

THE American Association of Orthodontists has endorsed and urged the participation of its members in a plan of disability income or health and accident insurance. This is the first time in the history of the Association that such a program has been approved, and it is important that the members understand the reasons for such a move and appreciate its value.

Several excellent articles dealing with death and its effects on the orthodontist's practice have appeared in our JOURNAL. Less has been said or written concerning an occurrence that results much more frequently in the interruption of practice—illness or accident.

In the event an orthodontist dies without adequate life insurance, his widow, in many cases, will be free to remarry, seek employment, or otherwise look to her future and that of her family. This is not so in the case of long-term disability, where the orthodontist may require extended costly hospitalization or constant attention at home. The income from his practice is eliminated, and financial reserves will soon be drained. His very existence becomes a burden to the family.

The officers of the A. A. O., concerned with such circumstances, named a committee to investigate the problem. After carefully reviewing and noting the limitations of plans already available to dentists through their local, state, and national groups, and after consulting a number of insurance counselors and representatives of insurance companies, an "ideal" contract was designed by the Insurance Committee. The Committee then went shopping with these specifications in mind until a plan underwritten by The North American Company of Chicago and The Great-West Assurance Company of Canada met in every detail the requirements of the Committee and subsequently received unanimous approval by the Board of Directors of the A. A. O. The Group Disability Income Insurance Program of the American Association of Orthodontists was unique from its inception, in that it was prompted and initiated by the orthodontists and not by a company selling insurance.

The contract provides the following:

1. Benefits for a long-term period *for all members*, with sickness benefits payable for ten years or to age 70, and lifetime accident benefits. (*Note:* The Committee learned that most state or local groups had plans providing two-year sickness and five-year accident benefits, although a few groups had available to them five-year sickness and life-

time accident benefits. In some areas so-called "extended plans" were available to a select group of members. These members were required to be in good physical condition and to have a good medical history, as each policy or certificate written on the "extended plan" was subject to the approval of the insuring company. Your A. A. O. Insurance Committee felt this was discriminatory and would not approve such a plan. Most of these "extended plans" provide sickness benefits payable to *age 65 only* for sicknesses commencing prior to age 63. For a sickness commencing at age 63 or after, benefits are paid for only two years.)

2. A broad definition of disability, that is, the inability to engage in the practice of orthodontics during the first five years and the inability thereafter to engage in any gainful profession or occupation for which a member is reasonably fitted by education, training, or experience.

3. A uniform waiting period of seven days or first day of hospital confinement for sickness and first-day accident for benefits to commence. (*Note:* Premiums were only slightly higher for this short waiting period than for policies with a thirty-day waiting period for sickness and first-day accident—about 12½ per cent on long-term plans. Also, insurance consultants and companies stated that the lapse rate was lower on policies providing earlier benefits. Experience during the first year has proved this to be a wise choice, as many members have collected benefits during the seven- to thirty-day period.)

It is interesting to note that when a policy contract providing equal coverage is purchased on an individual basis premium payments will be from 30 to 100 per cent more than the premiums under the A. A. O. Group Disability Income Insurance Program.

In addition to the savings made possible through the association plan, the policy has other distinct advantages, which include the following:

1. Sickness disabilities arising after this insurance is effective are covered, irrespective of the date of origin of the ailment causing such disability, provided complete medical history is included in the application.

2. The policy is available to all members up to age 70, and sickness benefits are payable up to age 70. Most individual policies providing long-term sickness benefits are not available after age 54, and sickness benefits are payable only up to age 65.

3. World-wide coverage is provided. Most individual contracts limit coverage to the North American continent.

4. Private flying coverage, including coverage as a pilot or crew member, is available for a nominal additional premium.

Several encouraging changes have recently been announced by the administrators of the plan. These include (1) a premium reduction effective Oct. 1,

1960; (2) a raise in the limit of benefits from \$500.00 to \$600.00 a month, with a concurrent increase in the number of plans available; (3) the reopening of the enrollment period, beginning September 15 and extending to December 15, during which period all new eligible participants will be guaranteed minimum benefits of \$200.00 a month. Also, the companies have consented to permit all members under age 70 to enroll during this period.

The above innovations are most unusual during the first year of an association contract of this type and are the result of good management, good participation, and favorable experience. Through the continued cooperation of the membership, further favorable experience will be enjoyed and should result in increased benefits and/or further rate reductions.

Among those who deserve credit for their efforts in establishing the program are Edwin G. Flint, who initiated the original committee while serving as president of the Great Lakes Society of Orthodontists; Allan A. Booth and Robert L. DeShong, who served on that committee; Nathan G. Gaston, who served as chairman of the Insurance Committee, together with all the members who served on his committee during the first difficult year of putting the contract into effect; and C. Edward Martinek, George M. Anderson, William R. Humphrey, and Earl E. Shepard, whose foresight and leadership have contributed much to the success of the program.

The administrators, Treloar and Heisel, are also to be commended for the high-level and ethical approach which they have consistently followed in their direct mailings and personal contacts. They will be available at each of the constituent society meetings and at the annual meeting of the American Association of Orthodontists to discuss the plan and to answer questions.

Thus, as the A. A. O. has emphasized the necessity for the orthodontist to meet the problems of death, the Insurance Committee has now directed its attention to the problem of living—living disabled and without income from the orthodontic practice.

It is the hope of the Insurance Committee that all members will avail themselves of the opportunity to participate in the American Association of Orthodontists Group Disability Income Insurance Program.

David C. Hamilton, Chairman, for the
INSURANCE COMMITTEE, AMERICAN ASSOCIATION OF
ORTHODONTISTS

Howard H. Dukes (Southwestern Society)
B. Edwin Erikson (Middle Atlantic Society)
George E. Ewan (Rocky Mountain Society)
Walter R. Bedell (Northeastern Society)
Robert E. Hennessy (Central Section of A. A. O.)
Frank F. Lamons (Southern Society)
Richard M. Railsback (Pacific Coast Society)

In Memoriam

HENRY GILLERS

1921—1960

IT IS with deep regret that we report the death, at the age of 38, of Henry Gillers a member of the Middle Atlantic Society of Orthodontists.

Dr. Gillers was born on Sept. 5, 1921, in Washington, D. C. He attended Central High School and George Washington University, and he received his degree in dentistry from the University of Maryland in 1945. He completed a postgraduate course in orthodontics at the University of Pennsylvania in 1950 and had been in the practice of orthodontics in Washington since that date.

Dr. Gillers was a member of the District of Columbia Dental Society, the American Dental Association, the American Association of Orthodontists, the Middle Atlantic Society of Orthodontists, Alpha Omega Society, and the Gorgas Honorary Society. He was on the staff of the Department of Orthodontics at Children's Hospital.

RESOLUTION

WHEREAS, Almighty God in His infinite wisdom has seen fit to take from our midst our loyal friend and colleague, Henry Gillers,

WHEREAS, in his passing the Middle Atlantic Society of Orthodontists has lost a loyal member,

WHEREAS, having lent dignity to the profession he loved, having served faithfully the country of his birth,

WHEREAS AND RESOLVED, that the Middle Atlantic Society of Orthodontists show by these resolutions our high esteem and tender affections for our departed member. May the principles of life to which he gave expression remain ever fresh through the years and be an incentive to us to strive toward a fuller and deeper meaning of a life of service;

RESOLVED, that the Middle Atlantic Society of Orthodontists express its sincere sympathy to the bereaved family,

AND BE IT FURTHER RESOLVED, that a copy of this resolution be spread upon the minutes and a copy of this resolution be sent to the family.

Respectfully submitted,
Willis J. McCormick, Chairman
Necrology Committee

Department of Orthodontic Abstracts and Reviews

Edited by

DR. J. A. SALZMANN, NEW YORK CITY

All communications concerning further information about abstracted material and the acceptance of articles or books for consideration in this department should be addressed to Dr. J. A. Salzmann, 654 Madison Avenue, New York City.

Abstracts of Papers Presented Before the Research Section of the American Association of Orthodontists Washington, D. C., April 26, 1960

Experimental Histologic Study of the Effects of Orthodontic Movement on the Gingiva and Periodontal Membrane in the Macaca Rhesus Monkey (Preliminary Report)*: By Robert J. Huettner, Columbia University School of Dental and Oral Surgery, Department of Orthodontics.

Fourteen *Macaca rhesus* monkeys were banded by the edgewise and Johnson multiple-band techniques; all types of orthodontic movements were undertaken.

Histologic sections of the jaws demonstrated that, under certain orthodontic forces, there were pathologic changes in the gingival fibers. In many instances there was a loss of the gingival fibers that attached to the papillary layer of the oral epithelium. Similar changes were also noted in the attachment of the gingival fibers to the lamina propria. At the same time, hyperplasia of the oral epithelium and inflammatory reactions were observed in the interdental tissues.

Wherever teeth were moved orthodontically, destruction of the alveolar crest was noted on the side of compression. The periodontal membrane maintained its vitality, however, even when partially thrombosed. When teeth were driven through the cortical plate of bone, the periodontal membrane was still intact.

Placement of the band on the tooth had an important bearing on whether the depth of the gingival sulcus increased or remained fairly constant. Hyperplasia and inflammatory reactions were found most often where a molar band had been cemented. Anterior bands that had been cemented on the center part of the tooth tended to keep gingival involvements to a minimum.

Of all the superficial attachment fibers, the transseptal fibers seemed to be the most resistant to damage caused by placement of bands on the teeth. They also regenerated very rapidly over areas of extraction, tended to elongate easily, and did not necrotize, even under severely compressive forces.

397 WEST MONTAUK HIGHWAY
BAY SHORE, N. Y.

*Supported in part by Government Grant D-776 from the United States Public Health Service, National Institutes of Health, Public Health Service.

A Critical Evaluation of the Method of Analyzing Cephalometric Roentgenograms: By James Edward Warren, University of Tennessee, College of Dentistry, Memphis, Tennessee.

Tracings were made from pretreatment lateral cephalometric roentgenograms of twenty children in each of four groups of malocclusion (Angle's I, Class II, Division 1; Class II, Division 2; and Class III). Each child included in the sample possessed a malocclusion to the extent that treatment was later undertaken.

Seventeen angular and two linear measurements that make up the University of Tennessee analysis were recorded for each child. Mean and standard deviation values were established for the four groups for each of the nineteen measurements. The mean age of each group was also established.

The "t" test was used to determine the level at which the mean value of each of the nineteen measurements for the four malocclusion groups differed statistically from corresponding means for Downs's or Riedel's adult excellent occlusion group.

With respect to each of the nineteen measurements, one or more of the malocclusion groups varied significantly from the mean values of the corresponding measurements for an adult excellent occlusion group, and at the same time the mean values of one or more of the malocclusion groups were within one standard deviation of the means for an adult excellent occlusion group.

4111 HILLSBORO RD.
NASHVILLE, TENN.

Development of a Profile-Intensifying Shield for Cephalometric Radiography:

By Donald R. Poulton, School of Dentistry, Division of Orthodontics, University of California, San Francisco, California.

The many modifications of cephalometric technique to clarify the soft-tissue outline testify to a general awareness of the problem. Previous solutions to the problem have included a partial masking of the x-ray source, painting a radiopaque substance on the profile, inserting an extra film into the cassette, and partial incomplete development of the film. A profile-intensifying shield was developed for this purpose.

The shield is suspended from the plastic plate which supports the nasion rest of the Broadbent-Bolton cephalometer, parallel to the midsagittal plane of the head, fixed at 12 cm. from this plane toward the x-ray source. Since the shield is automatically in constant relationship to nasion, the profile intensification is consistent over a wide range of head sizes. The shielding material was first made of a barium sulfate powder and wax mixture, so that the contour and density could be easily altered. This was then reproduced in pure aluminum in the desired contour, with a maximum thickness of 6 mm.

The use of this shield has made possible the routine production of cephalometric films with maximum contrast and definition in dense cranial areas and a soft-tissue image on the same film which can be studied under ordinary viewing conditions.

1721 SANTA CLARA AVE.
ALAMEDA, CALIF.

Changes in Apical Base Relations Coincident With Treatment of Class II, Division 1 (Angle) Malocclusion: By Richard W. Ramming, Jr., University of Tennessee, College of Dentistry, Memphis, Tennessee.

Fifteen patients, eleven males and four females, with an average age of 12 years 1 month, were treated orthodontically for the Class II, Division 1 malocclusion that each had.

The mechanotherapy used was that suggested by Tweed. The results of the therapy were studied.

Linear measurements were made to determine the changes which occurred in the maxilla, per se, for the maxillary apical base (point A), the apex of the root of the maxillary central incisor, and the incisal edge of this tooth. A multiple correlation exists between the posterior movement of point A and the bodily retraction of the maxillary incisors. Linear measurements were also made to show changes which occurred in the mandible, per se, for mandibular apical base (point B), the apex of the root of the mandibular central incisor, and the incisal edge of this tooth. A multiple correlation of the changes showed that only a moderate correlation exists.

Angular measurements were made to determine the changes which occurred during treatment for the maxillary apical base (S-N-A) and the mandibular apical base (S-N-B), for the relationship of these apical bases to each other (A-N-B), and for the movement of the mandible (S-N-Gn).

Statistical analyses and correlations of the changes to the original apical base relationship showed that there is a good chance that the maxillary and mandibular apical base relationship can be improved through treatment. This improvement usually results from the posterior movement of point A, more than from a forward movement of point B. Forward movement of the mandible was found to be unpredictable, even in cases with severe apical base discrepancies.

2201 BROOK ST.
WICHITA FALLS, TEXAS.

News and Notes

American Association of Orthodontists

The next annual meeting of the American Association of Orthodontists will be held April 16 to 21, 1961, in Denver, Colorado, with headquarters in the fabulous new Denver Hilton Hotel.



Aerial photograph, taken at about 12,000 feet, showing the United States Air Force Academy in front of the Rampart Range of the Rocky Mountains, with Pike's Peak in the background. A. A. O. members attending the Denver meeting of the American Association of Orthodontists will visit here on Tuesday, April 18, 1961, and enjoy a buffet dinner at the Officers Club.

The Colorado Visitors Bureau reminds us that Denver, one of the nation's youngest and fastest-growing major cities, has thirty first-class downtown hotels and 250 first-class motels and highway hotels. Convention facilities are said to be excellent. Denver is served by seven major airlines, seven major railroads, and seven major United States highways (including three on interstate system). The city has a cool, dry climate and the sun is said to shine on an average of 320 days each year.

Complete information concerning accommodations may be obtained by writing to Dept. AC, The Colorado Visitors Bureau, 225 West Colfax Ave., Denver 2, Colorado.

American Board of Orthodontics

The next meeting of the American Board of Orthodontics will be held at the Denver Hilton Hotel in Denver, Colorado, April 10 to 15, 1961. Orthodontists who desire to be certified by the Board may obtain application blanks from the secretary, Dr. Alton W. Moore, University of Washington School of Dentistry, Seattle 5, Washington.

Applications for acceptance at the Denver meeting, leading to stipulation of examination requirements for the following year, must be filed before March 1, 1961. To be eligible, an applicant must have been an *active* member of the American Association of Orthodontists for at least two years.

Middle Atlantic Society of Orthodontists

The ninth annual meeting of the eighth sectional society of the American Association of Orthodontists was held on Oct. 9, 10, and 11, 1960, at Haddon Hall in Atlantic City. Although following more or less the usual routine procedures, it has become evident that this group is rapidly overcoming its "growing pains." In organization, in activities for the ladies, and in scope of its educational program, it is now ready to assume adult stature comparable to its older sectional organizations.

The presence of A. A. O. President William R. Humphrey and his gracious wife was a most pleasant feature. Papers by Holly Halderson, William S. Brandhorst, William H. Oliver, and William R. Joule were appreciatively received. Their subjects were, respectively, "Routine Use of Minute Forces; Also Early Extraction of Second Permanent Molars in Orthodontic Treatment," "Treatment Timing," "Observation and Treatment of Open Bite Cases," and "The Bull Technique in Extraction Cases."

A panel discussion and table clinics concluded the professional program.

The ladies enjoyed a Continental Breakfast with a most unusual flower demonstration on Monday and a breakfast at the home of Dr. and Mrs. S. P. Gosman on Tuesday. The social events for all included a cocktail party on Sunday with an accompanying Oyster and Clam Bar, luncheons on Monday and Tuesday, and a dinner-dance honoring President and Mrs. Kyrle Preis on Tuesday.

Two other delightful and unusual features in the entertainment field were a color film of Denver and environs (courtesy of Bill Humphrey and the Denver Chamber of Commerce) and an exceedingly comical review of some recent research at the "Yukon University," presented by Milton R. Culbert of Toronto.

There were 138 members and 215 guests present at the meeting. Five active and twelve associate members were inducted. The total now includes 152 active and 51 associate members. The Qualifications Committee held its first examination prior to the meeting.

The following were elected to office:

President, Paul V. Reid
President-Elect, William A. Giblin
Vice-President, Francis Murray
Secretary-Treasurer, Charles S. Jonas
Director to A. A. O., Louis E. Yerkes
Alternate Director, Paul A. Deems
Editor, Stephen C. Hopkins, Sr.
Censor (3 years), Kyrle W. Preis

The next annual meeting will be held in Atlantic City at the Chalfonte-Haddon Hall Hotel on Oct. 1, 2, and 3, 1961.

Northeastern Society of Orthodontists

Under the presidency of Henry C. Beebe, the Northeastern Society of Orthodontists held its fall meeting at the Hotel Statler-Hilton in Boston, Massachusetts, Nov. 13 to 15, 1960.

The scientific program was as follows:

Some Problems in Planning Treatment for Class III Malocclusions. Ernest H. Hixon, Mexico City, Mexico.

Malocclusion and Civilization. Edward E. Hunt, Jr., Boston, Massachusetts.

Tooth Transplantation in Orthodontic Treatment. Walter C. Guralnick, D.M.D., Boston, Massachusetts.

Middle Age Fitness. Paul Dudley White, Guest Speaker.

Retention Phase of Orthodontic Treatment. Robert E. Moyers, Ann Arbor, Michigan.

A. A. O. Preceptorship Training Program. Philip E. Adams, Boston, Massachusetts. Structure of the Head. Ture Bengtz, Museum of Fine Arts School, Boston, Massachusetts.

Some Problems Associated With Serial Extractions. Ernest H. Hixon, Mexico City, Mexico.

Light Differential Force Treatment as Developed by Dr. P. R. Begg. Harold D. Kesling, Westville, Indiana.

Cervical Anchorage; Adjunct and Treatment Appliance. Samuel J. Lewis, Kalamazoo, Michigan.

Management of Perverted Function of the Tongue (motion picture). Clifford L. Whitman, Hackensack, New Jersey.

In addition, many clinics were presented. Guest speakers included William R. Humphrey, president, and J. A. Salzmänn, vice-president, of the American Association of Orthodontists.

Southwestern Society of Orthodontists

The fortieth annual meeting of the Southwestern Society of Orthodontists was held at the Town House Hotel in Kansas City, Kansas, Sept. 25 to 28, 1960.

Even though the meeting was held in the extreme northeast corner of the Southwestern area, we enjoyed our second largest meeting, with over 270 members, wives, guests, etc., attending.

The meeting opened on Sunday with the traditional golf tournament and gun shoot. Warren G. Kennard of Hutchinson, Kansas, carried off the golf trophy, while Hamilton D. Harper of Shreveport, Louisiana, took the top skeet prize. Friendships were made and renewed at the Sunday night reception and cocktail party.

The outstanding scientific meeting, arranged by Program Chairman Harold S. Born, was opened by President John W. Richmond. Our chief essayist was William L. Wilson of Boston, a graduate of Harvard Dental School who has contributed considerable time to teaching clinical orthodontics at the Harvard Dental School and enriched the orthodontic literature by his excellent articles. The title of his lectures was "The Middle Road Approach to Orthodontics." He stressed the importance of a thorough diagnosis and careful analysis in treatment planning. After this has been completed, he indicated, it is the responsibility of the orthodontist to select an appliance which will meet the demands of this planning and serve the best interest of the patient. Dr. Wilson is a strong believer in the forces available with the use of labial-loop-lingual appliance with its auxiliary attachments, and he demonstrated these facts convincingly. Throughout his course of lectures two phenomena were evident: (1) the limited use of bands and (2) his preservation of the premolars. He discussed the "Use of Labial-Loop-Lingual Appliance in Class II Cases," "Use of the Labial-Loop-Lingual Appliance in Class III Borderline Cases," and "Problems and Pitfalls in Orthodontic Treatment" and presented a clinic on "The Mechanism of the Labial-Loop-Lingual Appliance." The basis of his treatment is that by distal driving of the molars, he gains those few millimeters of space necessary for the positioning

of the anterior teeth and premolars in the trough of the dental arches. In his lectures, he demonstrated his accomplishments by the masterful way he uses this technique to develop necessary space with a minimum of stress for the natural eruption and for placement of teeth. His procedure gives full force to the freedom of natural growth processes and is of especial use where growth change is permitted to play a part in treatment. Dr. Wilson is an accomplished speaker, and his material was well prepared and most effectively presented.

Arthur F. Lindquist, Jr., of the School of Dentistry of the University of Kansas City presented a most informative paper on the "Prosthodontic-Orthodontic Procedures Involved in Cleft Palate Rehabilitation." Dr. Lindquist feels that the cleft palate problem must be met with a team approach, involving the plastic surgeon, the orthodontist, and the prosthodontist. His paper will be published in the JOURNAL. Throughout the meeting, Dr. Lindquist's most excellent scientific exhibit on cleft palate problems was on display.

Hamilton B. G. Robinson, Dean of the School of Dentistry, University of Kansas City, gave an excellent, incisive, informative lecture on "A Dental Educator Views Orthodontic Education." This, too, will be published in the JOURNAL.

A high light of the meeting was the presentation on September 26, of the Martin Dewey Memorial Award to H. C. Pollock and William B. Stevenson. (A detailed account of this event follows the present report of the meeting.)

On Monday night, two busloads of members and their ladies enjoyed seeing the Kansas City Athletics beat the Cleveland Indians at Kansas City's beautiful Municipal Stadium.

The Ladies' Entertainment Committee, with Mrs. John W. Richmond as chairman and Mrs. Howard H. Dukes as cochairman, arranged a sightseeing tour of the historical sites and many of the beautiful homes in Kansas City, which took them to the famous William Rockhill Nelson Art Gallery for a beautifully served and catered luncheon, followed by a most interesting tour of the Gallery.

As the guests arrived at the dinner-dance honoring President and Mrs. John W. Richmond, they were thrilled by two gorgeous "orchid trees" from which each lady selected her own orchid. Following dinner, all enjoyed the dancing.

Table clinics this year were run on a progressive schedule. Each member was assigned to a table clinic, and at the end of ten minutes he moved on to the next clinic. This helped to prevent unnecessary crowding at any one clinic and gave everyone an ample opportunity to see each excellent clinic.

The following officers were elected:

President, Bibb Ballard, Dallas, Texas
President-Elect, Harold S. Born, Bartlesville, Oklahoma
Vice-President, Robert E. Gaylord, Dallas, Texas
Secretary-Treasurer, Tom M. Matthews, Dallas, Texas
Director to Board of A. A. O., Nathan G. Gaston, Monroe, Louisiana
Alternate Director to A. A. O., J. Victor Benton, Wichita, Kansas
Sectional Editor, W. E. Flesher, Oklahoma City, Oklahoma

The following new members were elected to the Southwestern Society of Orthodontists:

Active:

Herbert Lawrence Bloom, Jr., Arlington, Texas
Alan N. Carr, Shreveport, Louisiana
Paul Edmond Huchel, Tyler, Texas
Max R. Moore, Kansas City, Kansas
Stephen Decatur Mobley, Dallas, Texas
Richard H. Oldfather, San Antonio, Texas
Fred W. Sims, Tulsa, Oklahoma
John Lee Smith, Dallas, Texas
William Floyd Stutts, Dallas, Texas
Billy G. West, Eldorado, Arkansas
Harold Robert Woolridge, McAllen, Texas

Associate:

Patrick Alessandra, Houston, Texas
James K. Atkins, Richardson, Texas
James William Barnett, Amarillo, Texas
John W. Bateman, Jr., Baton Rouge, Louisiana
Harold C. Dillee, Houston, Texas
Marion E. Ford, Rosenberg, Texas
Edward Ray Genecov, Dallas, Texas
Orien E. Hess, Joplin, Missouri
Glenn L. Hough, Pittsburg, Kansas
Larson Russel Keso, Oklahoma City, Oklahoma
Lightle Yarnell Morris, Jr., San Antonio, Texas
Werner M. Pfluger, Austin, Texas
Homer W. Phillips, Midland, Texas
George D. Ritchie, Wichita Falls, Texas
Thomas W. Rowan, Temple, Texas
Ralph Warren Rushing, Wichita Falls, Texas
Ottomar Albert Strateman, New Braunfels, Texas
Fay O. Wardlow, Little Rock, Arkansas
Charles C. Weaver, Springfield, Missouri

The Society passed a resolution opposing the proposed resolution drafted by the Council on Dental Education of the American Dental Association regarding dental specialties and specialization to be presented to the Special Reference Committee of the American Dental Association at the meeting in Los Angeles, California.

The meeting showed thorough planning and tireless work by President John Richmond, Secretary Tom M. Matthews, and the Local Arrangements Committee, whose efforts were rewarded by one of our most outstanding meetings.

HOWARD H. DUKES

**The Martin Dewey Memorial Award
Presented by
The Southwestern Society of Orthodontists
John W. Richmond, Presiding**

A highlight of this year's meeting of the Southwestern Society of Orthodontists in Kansas City, Kansas, was the presentation on Sept. 26, 1960, of the 1960 Martin Dewey Memorial Awards. In his introductory remarks, President John W. Richmond explained the Dewey Award briefly as follows:

"The Dewey Award is given by the Southwestern Society of Orthodontists for outstanding contributions to orthodontics. Previously, only one award was given each year. This year, however, upon the recommendation of the Dewey Award Committee (J. Victor Benton, Marion A. Flesher, and Chairman A. B. Conly) and with the approval of the Board of Directors, it was decided that more than one award could be given in any one year if such action seemed to be warranted. Consequently, two awards will be given this year to two outstanding leaders in our profession. Today we have assembled to pay tribute to the two recipients of the 1960 Martin Dewey Memorial Awards—H. Carlyle Pollock, Sr., of St. Louis, Missouri, and W. B. Stevenson, Sr., of Amarillo, Texas."

**PRESENTATION OF THE MARTIN DEWEY MEMORIAL AWARD
TO H. C. POLLOCK, SR., BY VICTOR J. BENTON**

Today we are privileged to pay tribute to a gentleman who has given himself to the profession of dentistry, and especially to orthodontics, for a period of fifty-two years.

He has done this not only by conducting a very successful practice but also by making outstanding contributions to dental and orthodontic literature and progress.

Harvey Carlyle Pollock, Sr., was born in Illinois, but he was reared in Rocky Ford, Colorado, and it was there that he started his career in dentistry following his graduation from the University of Michigan in 1907. His early interest in orthodontics and his recognition of the need for further training led him to study under Edward H. Angle and Albert H. Ketcham. Since 1912 he has been in private practice in St. Louis, Missouri.

It was in St. Louis, in the year 1912, that Dr. Charles Mayo of the great Mayo Clinic mentioned to Dr. C. V. Mosby, president of The C. V. Mosby Publishing Company, his idea of a journal devoted to the rapidly growing specialty of orthodontics. The idea grew and flourished under the guidance of Dr. Mosby, who agreed in January, 1914, to finance and start the publication of such a journal if Dr. Pollock would agree to provide him with contacts, ideas, and manuscripts.



DR. H. C. POLLOCK, SR.

Although the many years of his editorial career have been beset with numerous controversial issues, Dr. Pollock has always been an ardent enthusiast for down-to-earth health measures and for fair play for the dentist, the orthodontist, and the public. His many editorial contributions have been a tribute to his integrity and to his great interest in sound and sane decisions for the advancement of his profession. Such achievements often go unnoticed and unappreciated by those of us who are unfamiliar with the complications and heartaches of editorial undertakings. However, I believe that we would all agree with a comment made by a reader of the JOURNAL: "I regard it as one of the very best. I can see patience, sound wisdom, and the powerful persuasive influence of that firm guiding hand that is shepherding us on to the orthodontics of tomorrow where, by the sane revelations of our true breadth and depth, we will take our rightful place among the other learned professions...."

Dr. Pollock's activities have not been limited to editorial work, for his many writings and his philosophy are familiar to us all. I could not attempt to list his timely and valuable writings; nor could I attempt to name the many offices which he has held. These few remarks would be incomplete, however, if I did not mention that his early activities on behalf of the advancement of our profession led to his selection as president of the American Society of Orthodontists in 1936 and as president of the St. Louis Dental Society in 1922. For nine years he was secretary of the Missouri State Dental Society. He has also served as professor of orthodontics at Washington University School of Dentistry and St. Louis University School of Dentistry. He has been made an honorary member of the Southwestern Society of Orthodontists and of the Mexican Orthodontic Society.

Awards have been given for appliance therapies, research, and other activities, but never before has a man been so highly honored for his editorial accomplishments. He has been a Rock of Gibraltar which stands firmly in the face of attacks, evolutions, and challenges. By his masterful and very steady long-objective policies, he has editorially caused himself and the JOURNAL to emerge as winners for our profession. During the many years of his unselfish service, Dr. Pollock and his editorial staff have built the volumes of the AMERICAN JOURNAL OF ORTHODONTICS into a great source of orthodontic literature, thus permanently recording for future reference the advancement and progress of our specialty. For these accomplishments, we owe him a great debt of gratitude. Because of these attainments and his unswerving loyalty to his profession it becomes most appropriate that the Martin Dewey Memorial Award be conferred upon him today. Therefore, on behalf of the Board of Directors and the membership of the Southwestern Society of Orthodontists, it is my very great honor and privilege to present to you, Dr. Harvey Carlyle Pollock, Sr., this certificate attesting that you have been chosen in 1960 to be a recipient of the Martin Dewey Memorial Award, the highest honor which can be conferred upon any person by this organization.

RESPONSE OF H. C. POLLOCK, SR., TO PRESENTATION OF THE MARTIN DEWEY MEMORIAL AWARD

Dr. Benton's generous remarks are greatly appreciated, but I do feel that they are not deserved. Sometimes I get unflattering letters about editorials, I feel that they, too, are not deserved. Maybe that is one reason Dr. Benton's remarks are so very welcome!

First, it has been suggested that I say something to you about Martin Dewey and his work as editor for so many years of what is now known as the AMERICAN JOURNAL OF ORTHODONTICS. The written record of orthodontics previous to World War I is sparse. Most American orthodontic manuscripts were published in either *Items of Interest* or *The Dental Cosmos*.

Martin Dewey, the first editor of our JOURNAL, died in 1933 at the age of 52 years. J. A. Salzmann, writing in the *Review of Orthodontia* in October, 1933, said:

The sudden death of Martin Dewey has brought forth perhaps more eulogistic appraisals of his life and work than have ever been accorded any other man in dentistry. Dewey was a well nigh inscrutable personality, and yet, in constant association with him, one could perceive under his profound reserve and stoic demeanor, a man of deep, human and sympathetic understanding.

Dewey was essentially a teacher. He was a teacher in the best sense of the word. He was not so much a blazer of trails as an interpreter and inspirer of scientific endeavor. Dewey instilled in many the curiosity that leads to scientific research.

The most outstanding characteristic of Martin Dewey's personality was the superhuman zeal with which he defended his views. He brooked no opposition and spared neither friend nor foe in championing his avowed beliefs. It was no more than could be expected in this age, when vacillation is common and cant is rife,

that a man of his type would be grossly misunderstood and maligned. In spite of his world-wide renown in dentistry and orthodontia, the *real* Martin Dewey was known to but a few. To these his death left a great void.

As his successor, I had the task of carrying on some of Dr. Dewey's editorial work on the *AMERICAN JOURNAL OF ORTHODONTICS*. It was difficult to follow this man, however, for he had some extraordinary talents that are given to but few. In saying something about the man in whose memory you have established this Award, it might be appropriate to speak of Dr. Dewey's impact on orthodontics and of his influence on the careers of many who followed the pattern that he helped to create.

First, and in retrospect, one thing seems certain. If Martin Dewey was not one of the most brilliant teachers and parliamentarians who ever crossed the dental stage, he had but few equals. Notwithstanding any limitations that he may have had, he enjoyed an amazing talent, a photographic memory, and a courage that was unique. Most of the old-timers feel that had it not been for both Dr. Angle and Dr. Dewey, there would have been no orthodontic specialty as we know it today. Both were outstanding teachers. Angle was the pioneer teacher; Dewey (his former student) was also a great leader.

However, to backtrack a bit and trace the circumstances that resulted in the creation of the *AMERICAN JOURNAL OF ORTHODONTICS*, let us review a little history. In 1909 orthodontics was cautiously casting about to determine just where and how it fitted into the health services, if at all. Dr. Angle claimed that it should be a part of medicine, an attitude that a number of Angle's early students rather unconvincingly assumed. Most students thought that the idea was rather farfetched and that only by quite a stretch of the imagination could orthodontics be pictured as a specialty of medicine. Nonetheless, the urge in some quarters continued to manifest itself. Several medical men even became interested, particularly when some orthodontists (Ketcham and Bogue) began to present rather convincing evidence in the medical literature that they had actually changed the internal anatomy of the face by spreading the maxilla by means of orthodontic appliances attached to the teeth.

At the annual breakfast meeting of the Editorial and Publications Board of the *AMERICAN JOURNAL OF ORTHODONTICS*, held in New York in 1958, someone mentioned the strange combination of circumstances that led to the creation of the *JOURNAL* at about the time of World War I (Jan. 1, 1915, to be exact). It was surprising to note that only a few of those present at the meeting were aware of just what the forces were that culminated in the creation of this publication. Few were aware that Martin Dewey did most of the leg work and almost single-handedly took on the grief necessary for the success of the enterprise. Here, then, follows that story as observed from a "ringside seat." It reflects a long-forgotten aspect of Dr. Dewey's impact on the creation of our specialty.

The *AMERICAN JOURNAL OF ORTHODONTICS* really owes its origin to the inspiration and imagination of several men in the medical profession, with a few assists from dentists. The real inspiration came from one medical man in particular, who became a kind of convert to the new specialty known as "orthodontics." That man was Dr. C. V. Mosby.

Everybody knows about the big swings that are traditional in the medical profession—how ideas come up, fast spend themselves in a wave of overenthusiasm, and then settle back ultimately to common-sense application. One of those big swings was on at about the time of World War I and for a decade previous to the war, when children were losing tonsils and adenoids. The disease came from hypertrophied lymphoid tissue, the symptoms were those of chronic sinusitis, and the classic treatment was a routine operation to remove the adenoids and tonsils. The disease was almost epidemic, particularly in the United States. There was little or no restraint, and children by the thousands and thousands had their tonsils and adenoids removed.

The new specialty of orthodontics was caught in this great wave of medical interest. A syndrome was characterized by high narrow dental arches, narrow nasal fossa, occluded turbinate bones, mouth-breathing, protruding teeth, and an open mouth, and a weak chin completed the classic picture. That was the usual reflection published in much medical literature devoted to the subject which was sweeping the country at that time.

Some rhinologists contended in medical journals that a part of the answer to the cure for this malady might be found in a new field of dentistry. The medical journals were fairly screaming about the grave damage being done to children by diseased adenoids and tonsils. Many, many cases were then reported in which the upper dental arch had been expanded by the use of orthodontic appliances. Thus, orthodontists also got on the band wagon. It was claimed that the nasal fossa and dental arches of children could be made to grow wider and expand, thus increasing the breathing space. In some cases the expansion treatment was reported to have improved the nasal breathing of the child, and some amazing cures were reported in the literature. Medical men appeared on orthodontic programs. *The Laryngoscope*, a medical journal, devoted an entire issue (November, 1912) to the subject, with articles by Ketcham, Noyes, Haskins, and several medical authors.

Dr. C. V. Mosby, of The C. V. Mosby Publishing Company in St. Louis, became very much interested. He was not unacquainted with the background of orthodontics, for he had watched the career of Edward H. Angle in St. Louis, where the latter had established a successful private orthodontic school and attracted students from various countries of the world. Dr. Mosby decided that he would underwrite a journal on the subject of orthodontics, provided that he could be assured of the cooperation of the workers in this field. He felt that this particular branch of dentistry had a bright future, and he thought that orthodontics also showed possibilities of being the much-needed link between medicine and dentistry. He contended that a man with an M.D. degree should edit the journal. He obviously felt that orthodontics was destined to advance as a supplementary treatment for complex rhinological cases.

With that kind of a perspective, then, Edward H. Angle, D.D.S., M.D., was asked in 1914 to assume the editorship, but Dr. Angle showed little interest in the idea. Martin Dewey, D.D.S., M.D., then an up-and-coming young writer, dental teacher, and a former teacher in the Angle School, was asked to take over the job. Your JOURNAL was thus created and has preserved the bulk of the orthodontic record for forty-five years. The inspiration for our JOURNAL, then, was more medical than dental. This medical influence did not endure the test of time, however, and it soon lost some momentum.

The JOURNAL'S starting lineup was as follows:

1. C. V. Mosby, M.D., publisher, founder, and financial underwriter.
2. Martin Dewey, D.D.S., M.D., editor.
3. Charles Mayo, M.D., who made the first big gesture for orthodontics in a public address before the Section of Stomatology of the American Medical Association in Philadelphia, Pennsylvania, in 1912, when he said that orthodontics was destined to be the next big move in dentistry and that it had a promising future.
4. William Sauer, M.D., rhinologist of St. Louis, Missouri (and a teacher in the Angle School), who encouraged the journal idea.
5. Philip Skrainka, M.D., editor of the *Mid-West Medical Journal*, who gave much moral support to the experiment and provided much know-how. (Dr. Skrainka published articles on the subject of orthodontics for circulation among medical subscribers.)

Some of the early medical-minded manuscript came out of Walter Reed Hospital. This material dealt mostly with facial reconstruction and with rehabilitation records compiled as a result of combat wounds during World War I. Orthodontic technique was tied in with plastic surgery of the face, and that proved to be some of the most important material ever included in orthodontic literature. The authors were Major Joseph D. Eby, D.D.S. (orthodontist), Colonel Robert H. Ivy, M.D., and associates.

After the first burst of enthusiasm, however, subsequent to World War I, the medical manuscript became scanty. Then came a triumvirate consisting of two medical men and one specialist in orthodontics. They were Drs. Englebach and Arch Elkins, two national figures in endocrinology who reported some rather interesting work that was being done in their field, and C. C. Howard of Atlanta, Georgia, an orthodontist and a student of Dr. Angle.

Dr. Howard was both an orthodontic enthusiast and a nonconformist; he made no secret of the fact that he felt orthodontics, in its development, was a mechanical applied science and that it was badly in need of a broader base if it was to qualify as a real health service. This threesome, by means of lectures before professional groups and articles in medical journals, again aroused medical interest in orthodontics. They came up with the Howard syndrome, after years of work in the Atlanta Clinic of The Good Shepherd. This syndrome was well described in the AMERICAN JOURNAL OF ORTHODONTICS as well as in many medical journals, and it soon became known as the only syndrome of importance ever to come out of the dental profession. It still holds a conspicuous place in recorded medical literature.

All of this was recorded in the volumes of the AMERICAN JOURNAL OF ORTHODONTICS. The more orthodox and routine orthodontic manuscript was becoming available and was more in demand as the workers increased. At the same time, the demand for what might be called medical-slanted articles decreased, and less of this material was available.

You might ask how this all ties in with the man after whom this Award was named. I would answer that by saying that Martin Dewey, who was trained in medicine as well as in dentistry, was the key man in all this saga. This man, whose memory you enshrine with this annual Award, deserves much of the credit for creating the AMERICAN JOURNAL OF ORTHODONTICS. Having had a ringside seat at the conception and creation of this phase of orthodontic history, I say in retrospect that few men are endowed with the intestinal fortitude that it required to face up to the heartbreaks, the resistance, and the hard luck involved in getting this JOURNAL "off the ground."

Obviously, at least a part of the reason that you are presenting this Award today is connected with Martin Dewey's editorial work. Please let me bow in deference and say to you that Martin Dewey is the man who did the pioneer job when the trail was new and the going was tough. Without him and our faithful sectional editors, the founder and financial backer, and an efficient publishing organization, the JOURNAL would never have made it. In behalf of all these colleagues and the hundreds of fine authors who have helped to establish the forty-five-year record of publication, please accept my sincere thanks for this part of the honor of the Martin Dewey Memorial Award for 1960. Credit is due many who helped to carry on the editorial work that was put into orbit by Martin Dewey.

PRESENTATION OF THE MARTIN DEWEY MEMORIAL AWARD
TO WILLIAM B. STEVENSON, SR., BY MARION A. FLESHER

The Martin Dewey Memorial Award was originated in and by the Southwestern Society of Orthodontists in order to provide recognition for the contributions of its members and other persons toward the furtherance of orthodontic education, research, and practice. This is in keeping with the precepts, philosophy, and teachings of the man whose memory the Award honors—Dr. Martin Dewey.

The stature of the previous recipients will give ample testimony to the high order of professional performance and integrity that this Award commands. They were P. G. Spencer (1954), E. B. Arnold (1955), H. B. Robison (1956), T. G. Duckworth (1957), W. E. Flesher (1958), and E. F. Woodring (1959).

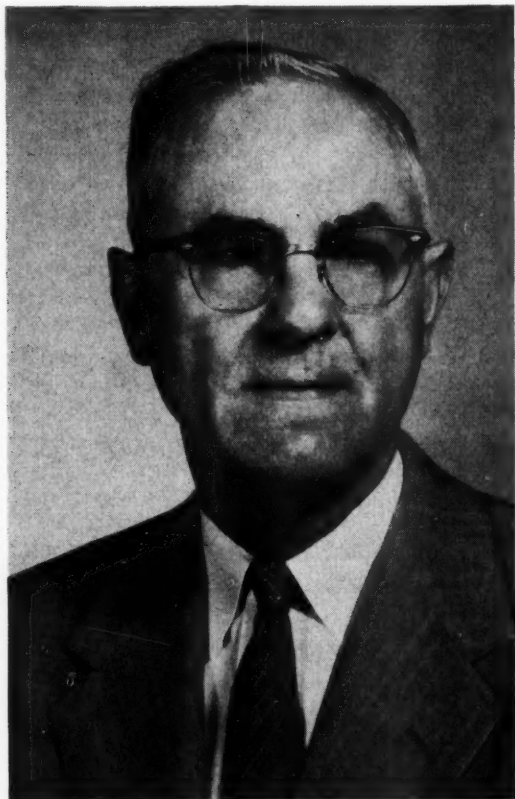
This presentation of the Martin Dewey Memorial Award is made to a man whom you all know for his untiring efforts in behalf of our profession, on both the sectional and national society levels. You may not know, however, that he is also well known as a successful businessman, rancher, and an avid outdoorsman who pilots his own plane in pursuit of his varied interests. The highly qualified and very proper recipient of this Award is William B. Stevenson, of Amarillo, Texas.

Dr. Stevenson was born Oct. 1, 1893, in the small town of Strawn, Texas, which is near Mineral Wells. As he puts it, "The town was so obscure, and the event of my birth so unnoticed that no record was ever made of it. This I learned when I applied for a birth certificate."

When he was 1 year old, his mother died and he and his father moved to Breckenridge, where he spent his early years. After graduation from high school, Dr. Stevenson attended

Brittan College at Cisco, Texas, and North Texas State College at Denton, Texas. His professional career was then interrupted by a four-year stint of teaching school before he entered dental college. He received his degree from the Baylor University School of Dentistry in 1919.

On April 19, 1919, Dr. Stevenson and Miss Carrie Virginia Pauley were married in Grandview, Texas, and returned to Breckenridge where Dr. Stevenson had two years of general practice in preparation for his training in orthodontics. In April of 1921 the Stevensons moved to Amarillo, Texas. They were delayed in Abilene by the birth of their only child, W. B. (Bill), Jr., who is now associated with his father in the practice of orthodontics. Shortly after arriving in Amarillo, Dr. Stevenson went to New York, where he entered the Dewey School of Orthodontics. He finished his course there in 1921.



DR. WILLIAM B. STEVENSON, SR.

Dr. Stevenson has served dentistry and orthodontics in many ways. He has been honored by his local and district dental societies and was elected to membership in the Southwestern Society of Orthodontics in 1922. He was elected president of the Southwestern Society of Orthodontics in 1932, and for several years he served as the Southwestern Society's delegate to the American Association of Orthodontics. He was elected vice-president of the American Association of Orthodontics in 1957.

Dr. Stevenson has always shown an inquisitive and inventive turn of mind. He has been interested in photography for many years, and he probably had one of the first independently developed spot-welders in existence.

Dr. Stevenson also had a very important part in the development of the removable appliance, which has been a favorite item in his practice of thirty-nine years. He certainly

can be called a pioneer in orthodontics in his area, since at the time he opened his practice in 1921 he was the only orthodontist between Oklahoma City and Los Angeles and between Dallas and Denver. He has been a continuous student throughout his active career, attending all meetings of the American Association of Orthodontists and the Southwestern Society of Orthodontists, with one exception in each case. As he says, "I never attended a meeting where I did not learn something of value."

With the approval of the Martin Dewey Memorial Award Committee and the permission of the chair, I wish to invite Bill Stevenson, Jr., to the rostrum to share with me the honor of presenting this Award to his father, William B. Stevenson of Amarillo, Texas.

RESPONSE OF WILLIAM B. STEVENSON, SR., TO PRESENTATION OF THE MARTIN DEWEY MEMORIAL AWARD

The dental profession has honored me many times during my association with that group, but I deem this the greatest of them all. For this honor all that I can say is, "Thank you."

During my time I have seen orthodontics develop from a little-known and less appreciated specialty to a valued part of dentistry.

I pledge my efforts to help to continue this trend of progress and to promote good relations among dentists and the public.

This Award obligates me to continue to study, to observe clinical results, and to accept helpful criticism.

Our record points the course we take
To greater records we can make
For hope springs, not from what we've done
But from the work we've just begun.

—Anonymous.

Please accept my sincerest thanks.

American Dental Association*

PATTON ACTIVE IN AFFAIRS OF PROFESSION

Dr. Charles H. Patton [orthodontist], the new ADA president, has long been active in organizational affairs of the dental profession. He was born July 18, 1897, in West Chester, Pa. A 1919 graduate of University of Pennsylvania School of Dentistry, Dr. Patton is a past president of Pennsylvania State Dental Society and Philadelphia County Dental Society. He also has headed Pennsylvania Association of Dental Surgeons, Academy of Stomatology and Dental Alumni Society of the University of Pennsylvania. Dr. Patton was trustee for the third district for two terms. He served as a member of the first Council on Scientific Session after its formation in 1948. The Philadelphia dentist is a diplomate of the American Board of Orthodontics, member of the dental staff of Philadelphia General Hospital and assistant professor of cleft palate therapy at the University of Pennsylvania School of Dentistry. Dr. Patton has received a number of honors. Among them have been the Award of Merit from the General Alumni Society of the University of Pennsylvania and the Dental Alumni Award from the University of Pennsylvania School of Dentistry. Dr. Patton, who is a Quaker, belongs to the Masons. A member of the U. S. Naval Reserve in World War I and the U. S. Coast Guard Reserve in World War II, he has been listed in Who's Who in the East. The Philadelphia dentist and his wife, Charlette, have two sons, Charles H., Jr., and Richard W. The family residence is at 1702 Locust Street, Philadelphia.

*From the *ADA Newsletter*, Nov. 1, 1960.

SPECIALIST RESOLUTION POSTPONED

During the 1960 annual session the House of Delegates took following major actions: —Postponed for one year final disposition of a resolution directing that after Jan. 1, 1965, all members who announce themselves as specialists or as limiting their practices in one of the areas approved by ADA be required to hold a certificate from a national certifying board approved by ADA or a state license permitting such announcement, directing *Principles of Ethics* changes to this effect and establishing appropriate rules in this vein for the *American Dental Directory*;

—Directed continuance for a reasonable period the current seven areas of dental practice, requested that the certifying boards of these seven areas submit to the Council on Dental Education an acceptable definition of the scope of their areas and evidence that the majority of diplomates restrict their practice full time to those areas.

ADA Told of U. S. Space Program

"Russia may lead the United States in propaganda impact of its space exploration, but not in missile production or in scientific utility of the discoveries being made," said Dr. Lee A. DuBridge, a chairman of President Eisenhower's Science Advisory Committee, in a speech delivered on Oct. 17, 1960, at the opening meeting of the 101st annual session of the American Dental Association in Los Angeles.

In the course of his talk, Dr. DuBridge, who is president of California Institute of Technology, took note of the missile competition between the Russians and this nation.

"As far as intercontinental missiles are concerned," he said, "there is no technological gap of significance since our Atlas and Titan missiles are quite adequate to carry our best thermonuclear warheads to any possible enemy target."

But "if we can be skeptical about the existence of a missile lag," he pointed out, "we cannot deny the existence of a space lag."

"Huge booster rockets such as those possessed by the Russians," he pointed out, "undeniably enable one to launch larger space vehicles and to send them farther into space."

The psychological value of Russia's present space lead lies primarily, he said, "in the influence it has on other nations." While "the United States has announced a vast array of important scientific discoveries in space," he said, "the Russians have surpassed us in the number of 'firsts' they have been able to achieve."

Among them, he listed, "the first earth satellite, the first moon impact, the first picture of the far side of the moon, the first orbiting animal, and the first recovery of animals from space orbits."

In connection with the military aspects of space exploration, Dr. DuBridge pointed to the obvious attractiveness of using satellites for military reconnaissance and as communication networks for military forces. However, he said there was little persuasive evidence that a space vehicle promises to be superior to an ICBM (intercontinental ballistics missile), in "placing atomic or thermonuclear bombs accurately and surely on distant targets." The Cal Tech president cast doubt as well on the utility of the moon as a base of operation.

"America would do well," he said, "to continue to develop its program in depth, not trying for spectacular effect."

"There is so much to learn about the vast unknown reaches of space," he said, "that all scientists are anxious to get busy as soon as possible on a series of carefully planned research programs." In delineating the potential, he included increased knowledge of our own planet, its weather, its magnetic field, and its gravitational field as well as learning about other heavenly bodies.

"There are enough possibilities," he concluded, "to last for generations—even for centuries—to come."

University of Kansas City

The Graduate Department of Orthodontics, University of Kansas City School of Dentistry, held its first annual orthodontic seminar at the Camelback Inn in Phoenix, Arizona, Nov. 6 to 9, 1960. The program consisted of a symposium on "Principles of the Appliance," and the principal speakers were Richard M. Drake, Kansas City, Missouri; Oren A. Oliver, Nashville, Tennessee; Joseph E. Johnson, Louisville, Kentucky; Arnold E. Stoller, Seattle, Washington; T. M. Graber, Chicago, Illinois; Victor D. Bowles, Kansas City, Missouri; and Hamilton B. G. Robinson, Kansas City, Missouri.

A.O.A. and A.A.O. Presidents Meet in Santa Fe



Robert Norton, president of the Australian Orthodontic Association, and William R. Humphrey, president of the American Association of Orthodontists, chatting at the annual meeting of the Rocky Mountain Society of Orthodontists in Santa Fe, New Mexico, on Sept. 26, 1960.

Orthodontic Directory of the World

The twentieth edition of the *Orthodontic Directory of the World* is now off the press. The *Directory*, which is larger and more comprehensive than formerly, makes a report on graduate and postgraduate programs in dentistry for 1958-1959. This report is issued biannually by the Council on Dental Education.

An excerpt from the foreword explains the purpose of the *Directory* as follows:

The purpose of the *Orthodontic Directory of the World* is threefold.

1. To alleviate transfer of patients who change permanent residence to another area.
2. To aid orthodontists in keeping contact with each other through correspondence, interchange of knowledge and renewal of old friendships.
3. To attempt to furnish information concerning basic orthodontic training and qualification.

The editors have used every available means at their command to make the Nineteenth Edition of the "Orthodontic Directory of the World" as nearly correct as possible. In spite of this, we know that errors may have been made, and we would appreciate your calling these to our attention so that they may be corrected in the next edition. Although every available means was used to attempt to contact all orthodontists eligible for listing, on account of changes in addresses of a number of orthodontists formerly listed, several names may have been inadvertently omitted, despite our efforts. Three information blanks were sent out to those who were formerly listed, and if they were not returned that name was omitted.

Lack of space prevented credit for short courses being recognized, as stated in the information blanks sent out. Short courses are certainly valuable, but they do not represent basic training. It is to be presumed that nearly every practicing orthodontist has at one time or another taken one or more short courses.

Orthodontic societies not affiliated with the parent national organization are not included. Such minority group societies not affiliated with the parent national organization merely tend to weaken the orthodontic profession and consequently are not recognized in the Directory.

The inclusion of any name in the Directory is in no way to be considered as an endorsement by the Editors or Associations. The names of those men engaged in non-exclusive practice are restricted (1) to those men in localities where there is no one in exclusive practice or (2) to those who have had adequate training and whose practice includes at least fifty per cent of the practice in exclusive practice of orthodontics or (3) to a non-exc. practitioner who is devoting more than fifty per cent of his time to the practice of orthodontics and who has been recommended for inclusion by others in the exclusive practice of orthodontics from his locality.

The schools and abbreviations listed are those universities which give basic training in orthodontics in addition to training received while working on the dental degree. These schools do not all give degrees, however, the training given at these schools generally may be considered as postgraduate level orthodontic training.

The listing is done on a country, state, and city-by-city basis. The *Directory* is a valuable edition to any specialist's library, and it is edited by Dr. William H. Oliver of 1915 Broadway, Nashville, Tennessee.

Death of William Grimm

Members of the American Association of Orthodontists will be sorry to learn of the death of Mr. William Grimm, husband of Mrs. Augusta K. Grimm. Mrs. Grimm has for many years recorded the annual proceedings of the A. A. O. and is well known to many orthodontists. Mrs. Grimm will have the sincere sympathy of many orthodontists everywhere during her sadness.

American Association of Orthodontists Establishes Central Office and Seeks Administrative Secretary

The American Association of Orthodontists has established a central office in Room 303 of the Coronet Building, 225 South Meramec Ave., St. Louis, Missouri.

The office is currently being conducted by Secretary Earl E. Shepard with the aid of Mrs. Pat Kerr, assistant secretary.

It is the desire of the Association, as stated at the annual meeting in Washington, D. C. that ultimately a secretary of administrative or executive stature be employed to head this office.

It is to be remembered that an active, aggressive person is preferred, one who not only has qualifications for running a business office but who has an understanding at least of public relations.

Therefore, if any member has knowledge of a qualified man, he is requested to ask him to contact the secretary at the above address.

Miami Orthodontic Foundation Announces First Annual Orthodontic Seminar

The Miami Orthodontic Foundation announces the first annual orthodontic seminar to be held at the Americana Hotel in Miami Beach, Florida, Feb. 13 to 16, 1961. The program, devoted to a growth and development lecture series, is entitled "The Human Head—A Synthesis of Current Knowledge." The panelists will be Bertram Kraus, Professor of Physical Anthropology, University of Washington, School of Dentistry; Melvin Moss, Professor of Anatomy, College of Physicians and Surgeons, Columbia University; Nicholas DiSalvo, Chairman, Department of Orthodontics, College of Physicians and Surgeons, Columbia University; and Charles Burstone, Chairman, Department of Orthodontics, College of Dentistry, University of Indiana.

All inquiries should be addressed to the Miami Orthodontic Seminar, Americana Hotel, Miami Beach, Florida.

Notes of Interest

George Glick, D.D.S., announces that since November, 1959, he has been in the exclusive practice of orthodontics at 6500 Jericho Turnpike, Commack, New York.

William M. Jarrett, D.D.S., and Charles H. Hopkins, D.D.S., announce the association of Jack R. Martin, D.D.S., M.S., at 201 Nelson Bldg., Charleston, West Virginia, practice limited to orthodontics.

Herbert A. Wehrle, Jr., D.D.S., announces his association in the practice of orthodontics with Leland G. Meder, D.D.S., at 508 Logan Blvd., Altoona, Pennsylvania. (Dr. Meder recently served as Assistant Chief of the Dental Division, Office of the Surgeon General, and at Walter Reed Army Hospital prior to his retirement from the Army Dental Corps.)

Forthcoming meetings of the American Association of Orthodontists:

- 1961—Denver Hilton Hotel, Denver, Colorado, April 16 to 21.
- 1962—Statler Hotel, Los Angeles, California, April 28 to May 3.
- 1963—Hotel Fontainebleau, Miami Beach, Florida, May 5 to 9.
- 1964—Palmer House, Chicago, Illinois, May 10 to 14.
- 1965—Dallas Statler-Hilton, Dallas, Texas, April 25 to 30.

OFFICERS OF ORTHODONTIC SOCIETIES*

The AMERICAN JOURNAL OF ORTHODONTICS is the official publication of the American Association of Orthodontists and its component societies. The Editorial Board of the JOURNAL is composed of a representative of each of the component societies.

American Association of Orthodontists

(Next meeting April 16-21, 1961, Denver)

President, William R. Humphrey - - - - - Republic Bldg., Denver, Colo.
President-Elect, Dallas R. McCauley - - - - - 410 S. Beverly Dr., Beverly Hills, Calif.
Vice-President, Cecil G. Muller - - - - - 101 S. 35th Ave., Omaha, Neb.
Secretary-Treasurer, Earl E. Shepard - - - - - 225 South Meramec, Clayton, Mo.

Central Section of the American Association of Orthodontists

(Next meeting Oct. 1-3, 1961, Minneapolis)

President, Henry E. Colby - - - - - 1850 Medical Arts Bldg., Minneapolis, Minn.
Secretary-Treasurer, Kenneth E. Holland - - - - - 1016 Sharp Bldg., Lincoln, Neb.
Director, G. Hewett Williams - - - - - 811 Elm St., Winnetka, Ill.

Great Lakes Society of Orthodontists

President, Hunter I. Miller - - - - - 1416 Mott Foundation Bldg., Flint, Mich.
Secretary, Edward A. Cheney - - - - - 1201 Bank of Lansing Bldg., Lansing, Mich.
Director, Harlow L. Shehan - - - - - 601 Jackson City Bank Bldg., Jackson, Mich.

Middle Atlantic Society of Orthodontists

(Next meeting Oct. 1-3, 1961, Atlantic City)

President, Paul V. Reid - - - - - Medical Arts Bldg., Philadelphia, Pa.
Secretary-Treasurer, Charles S. Jonas - - - - - Mayfair Apts., Atlantic City, N. J.
Director, Louis E. Yerkes - - - - - 825 Linden Ave., Allentown, Pa.

Northeastern Society of Orthodontists

President, Henry C. Beebe - - - - - 60 Charlesgate West, Boston, Mass.
Secretary-Treasurer, David Mossberg - - - - - 36 Central Park S., New York, N. Y.
Director, Norman J. Hillyer - - - - - 230 Hilton Ave., Hempstead, L. I., N. Y.

Pacific Coast Society of Orthodontists

(Next meeting Aug. 6-10, 1961, Seattle)

President, E. Allen Bishop - - - - - 703 Cobb Bldg., Seattle, Wash.
Secretary-Treasurer, Warren A. Kitchen - - - - - 2037 Irving St., San Francisco, Calif.
Director, William S. Smith - - - - - 2530 Bissell Ave., Richmond, Calif.

Rocky Mountain Society of Orthodontists

President, William A. Blueher - - - - - 801 Encino Pl., Albuquerque, N. M.
Secretary-Treasurer, E. H. Mullinax - - - - - 8790 W. Colfax, Lakewood, Colo.
Director, Ernest T. Klein - - - - - 707 Republic Bldg., Denver, Colo.

Southern Society of Orthodontists

President, Charles E. Harrison - - - - - 362 Sixth St., S., St. Petersburg, Fla.
Secretary-Treasurer, William H. Oliver - - - - - 1915 Broadway, Nashville, Tenn.
Director, Boyd W. Tarpley - - - - - 2118 Fourteenth Ave., S., Birmingham, Ala.

Southwestern Society of Orthodontists

President, Bibb Ballard - - - - - 7713 Inwood Rd., Dallas, Texas
Secretary-Treasurer, Tom M. Matthews - - - - - 8215 Westchester Dr., Dallas, Texas
Director, Nathan Gaston - - - - - 701 Walnut St., Monroe, La.

American Board of Orthodontics

(Next meeting April 10-15, 1961, Denver)

President, Wendell L. Wylie - - - - - University of California School of Dentistry,
San Francisco, Calif.
Vice-President, J. A. Salzmann - - - - - 654 Madison Ave., New York, N. Y.
Secretary, Alton W. Moore - - - - - University of Washington School of Dentistry, Seattle, Wash.
Treasurer, Paul V. Reid - - - - - 1501 Medical Arts Bldg., Philadelphia, Pa.
Historian, B. F. Dewel - - - - - 708 Church St., Evanston, Ill.
Director, Frank P. Bowyer - - - - - 608 Medical Arts Bldg., Knoxville, Tenn.
Director, Nathan G. Gaston - - - - - 701 Walnut St., Monroe, La.

*In order to keep this list up to date, the editor depends on the various sectional editors to notify him immediately of changes in officer personnel.

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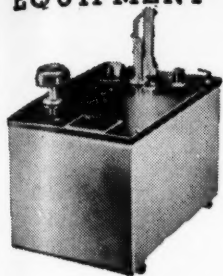
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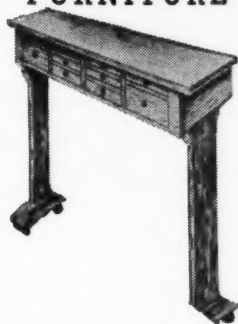
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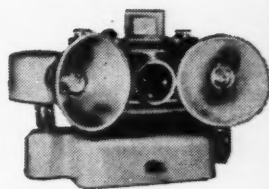
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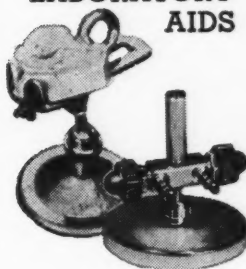
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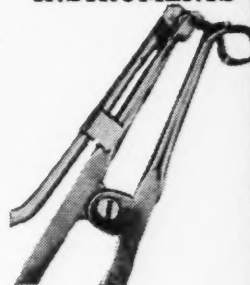
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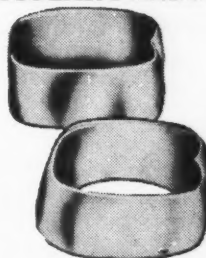
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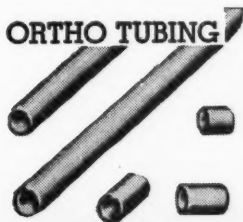
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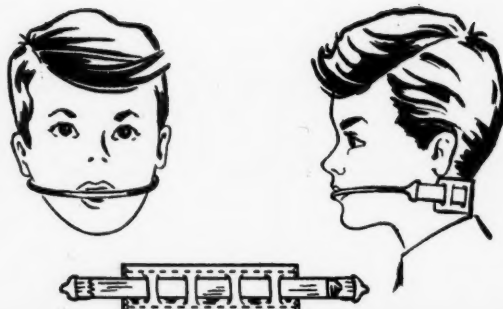
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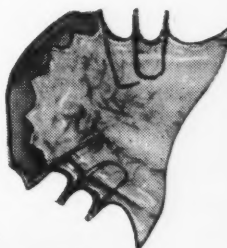
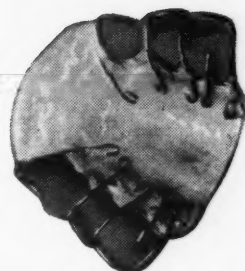
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Want three reasons why over half of all Unitek appliances are sold pre-assembled, ready to be fitted? Easy. Pre-assembly at the factory saves lab time, saves chair time, and insures exact alignment of brackets. Ever wondered how experienced Unitek is at this service? Might surprise you. Unitek has offered precision pre-assembly service on a custom basis for over a decade. Unitek doesn't stand still, though. New welding equipment, improved techniques and new, better facilities add up to more rapid service for you. For details, please consult your Unitek catalog or contact New York or Monrovia direct.

CUSTOM PRE-ASSEMBLY FOR YOU AT UNITEK

BRACKETS WELDED TO STRAIGHT BAND MATERIAL/Brackets are centered on the band material of your choice and securely welded. The finest Weldmatic Industrial welders are used. Skilled operators contribute to the uniformly high quality of the welding.



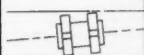
BRACKETS WELDED TO SEAMLESS ANTERIOR OR SEAMLESS CUSPID BANDS/Brackets are accurately positioned on these bands using precision welding tooling. Always uniform, always securely welded. Seating lugs are routinely welded to the lingual side of these bands.



BRACKETS WELDED TO LOOP BANDS/Straight band material with brackets welded receive one additional operation to save you time. The bands are formed to the figure eight shape required for Howlett band forming pliers, and the ends are welded together ready for use. Cuspid bands or bands with Steiner or UT-380 brackets cannot be looped.



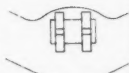
ANGULATION WELDING/For those Doctors using the recent technique of positioning the bracket on the band at a pre-determined angle to avoid excessive tip-back bends in the arch wire, we offer this additional service. Precise tooling enables us to weld the bracket at any angulation to the occlusal plane.



BRACKETS WELDED TO FORM-FITTING CUSPID OR BICUSPID BLANKS/Brackets are accurately centered on the Form-Fitting blanks of your choice and securely welded. The difficult task of positioning brackets on these bands is facilitated by our use of accurate tooling.



OFFSET INCISALLY/Any bracket and band combination can be ordered with the bracket offset incisally. The standard amount of offset is .025 above the center line. Brackets may be ordered offset more, or less, than this amount to meet your specific requirements.

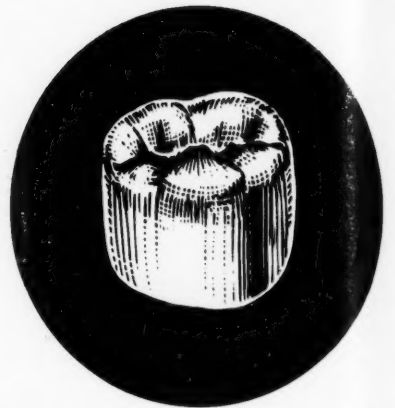


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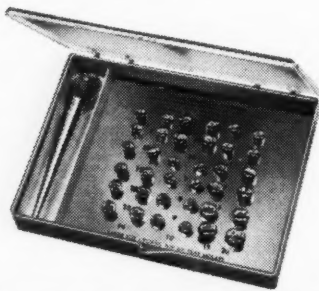
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When a cuspid is to be banded as part of an orthodontic appliance, the use of stainless steel crowns offers distinct advantages:

Well fitted crowns readily snap gingivally over convex tooth surfaces and cover a maximum of the tooth . . .

Crowns are more rigid than simple bands—and less subject to material distortion . . .

Crowns protect the tooth enamel.

Crowns are fitted as follows—

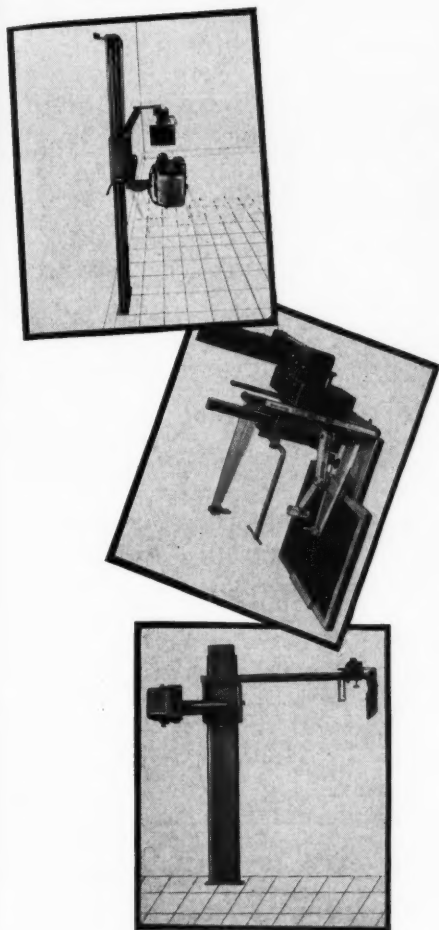
1. Select a crown which fits comfortably over tooth, extending slightly subgingivally.
2. Measure tooth from incisal edge to gingival margin.
3. Inscribe inciso-gingival measurement on crown; allow a little extra length for festooning and gingival adjustment.
4. Cut off incisal tip of crown.
5. Festoon gingival of crown; contour as needed.
6. Add necessary attachments by spot-welding or soldering, and install appliance.

Order through your dealer—or write for detailed literature



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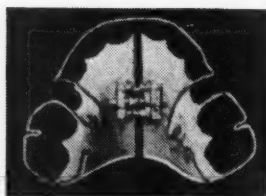
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PARKELL EXPANSION SCREWS

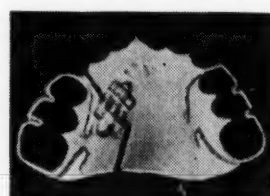
Simple reliable regulating devices for individual and mass movement of teeth



For lateral expansion



For buccal and labial movement of one or more teeth



For distal movement of one or more teeth

Three convenient sizes in stainless steel



	Length	Width	Thickness	Expansion Capacity
No. 111F (small)	10 mm	7 mm	4 mm	6 mm
No. 110D (medium)	10 mm	9 mm	4 mm	5 mm
No. 110C (large)	13 mm	8 mm	4 mm	6 mm

Supplied with adjustment wrench and acrylic guard mounted in screw to protect mechanism during processing. Each 360° turn of wrench expands screw 0.8-0.9 mm.

PRICE: \$50.00 per doz. (your assortment) . . . \$4.25 per single screw

LABORATORY TECHNIC FOR PROCESSING EXPANSION SCREW APPLIANCES*

Many doctors have asked us for information on construction of expansion screw appliances. The following technic is available on request . . .

1. Tinfoil model, or use foil substitute. For appliances involving buccal or labial movement of teeth, use a heavy layer of tinfoil under segment to be moved, to avoid pressure on tissue.
2. Wax clasps, springs and labial to model in proper position; shape wax on model to desired design and trim to sharp outline.
3. Carefully imbed expansion screw (with acrylic guard in place) into wax-up so it is just touching surface of foiled model. Position of expansion screw's axis is important: it must lie parallel to occlusal plane of teeth to be moved.
4. Flask and process acrylic as usual.
5. After processing, separate flask and remove acrylic guard from expansion screw by bending it back on itself with a rocking motion. Then remove appliance from model and cut it into desired segments, using a saw or fissure bur.
6. Polish and finish as usual. The completed appliance should fit snugly; adjust any rocking or play.

When using cold cure acrylic—

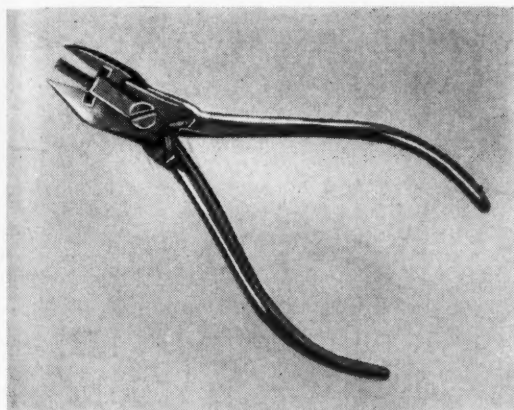
Wax all wires to model on buccal, leaving lingual surface clear of wax. Place a thin layer of acrylic in area where expansion screw is to be set.

Press screw firmly into place, just clear of surface of model; add a little acrylic to sides of screw to hold it firmly in place, then fill in rest of model to desired outline.

When acrylic has cured, complete appliance with steps 5 and 6 above.

*Suggested by S. Stolzenberg, Technician, Brooklyn, N. Y.

... and PARKELL PLIERS for expansion screw appliances ...



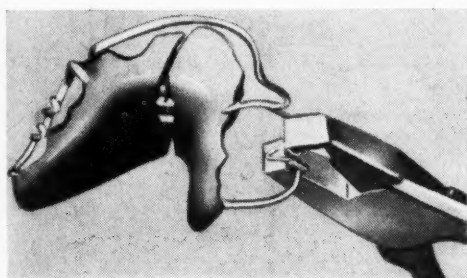
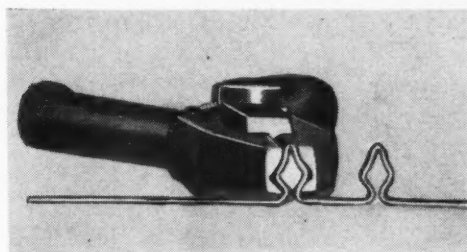
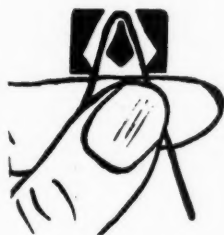
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ARROWHEAD LOOP ADJUSTER

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Specially shaped jaws grip arrowhead loops and bend them over into the desired relationship to the teeth.

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By ARTHUR H. WUEHRMANN, D.M.D., University of Alabama School of Dentistry, Birmingham, Ala. Published November, 1960. 235 pages, 4 $\frac{7}{8}$ " x 7 $\frac{5}{8}$ ", illustrated. Price, \$6.50.

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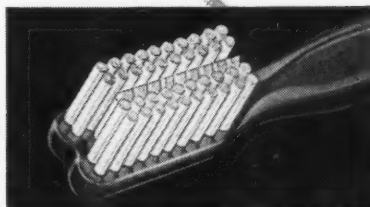
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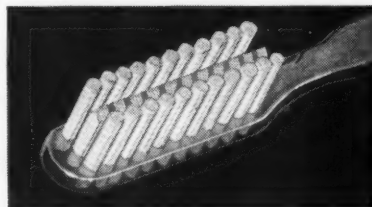
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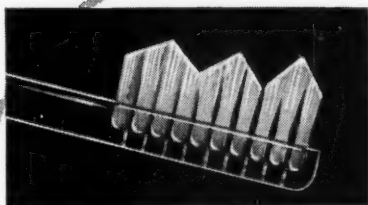


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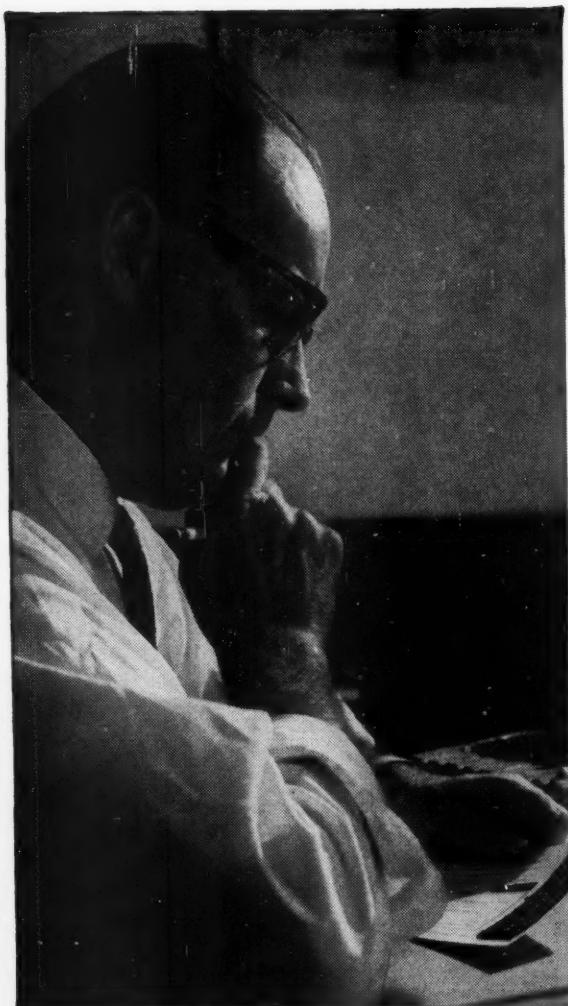


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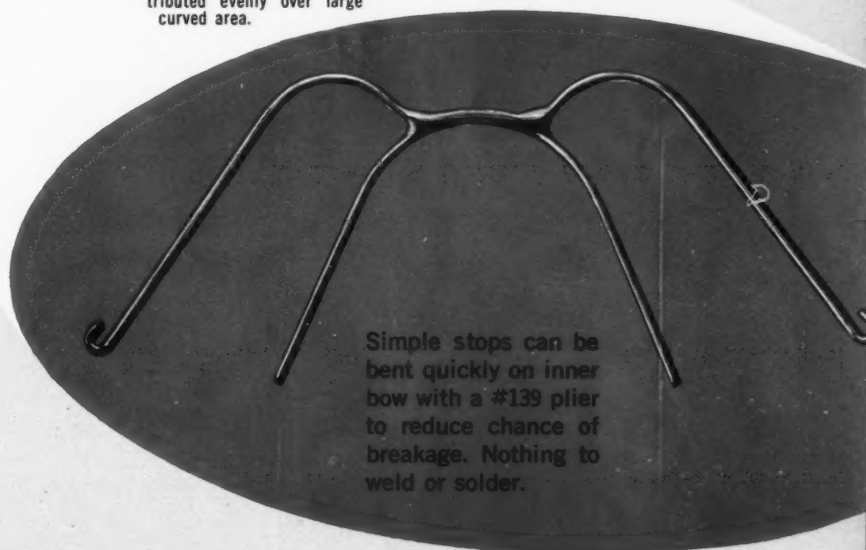


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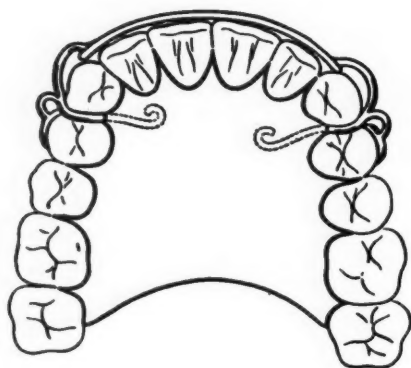
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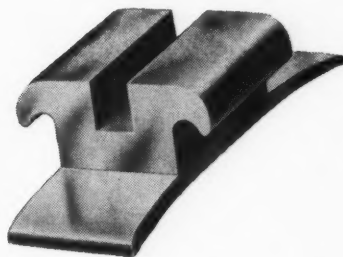
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
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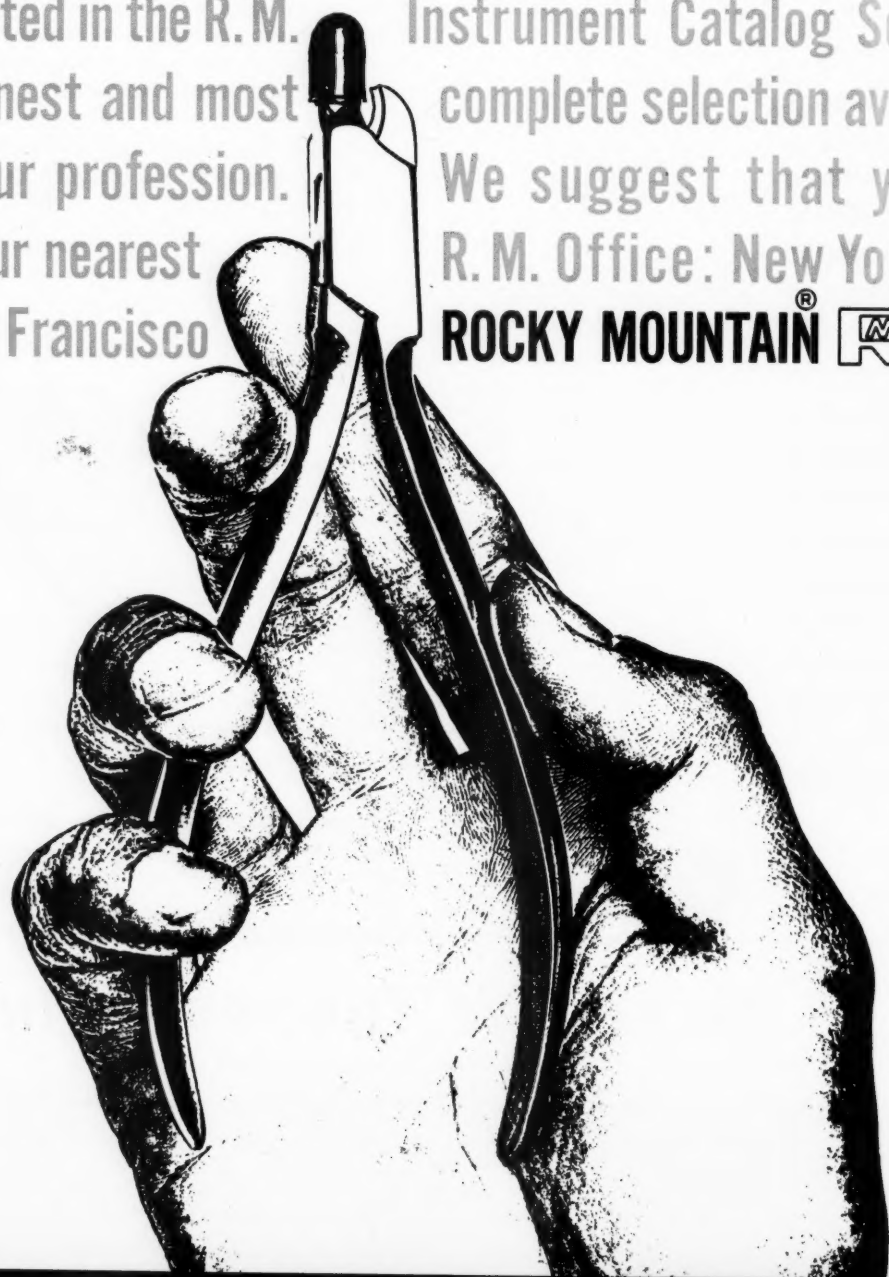
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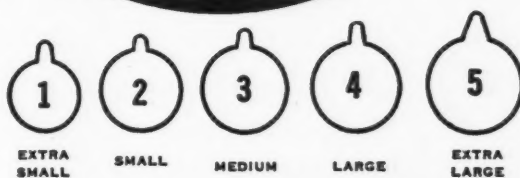


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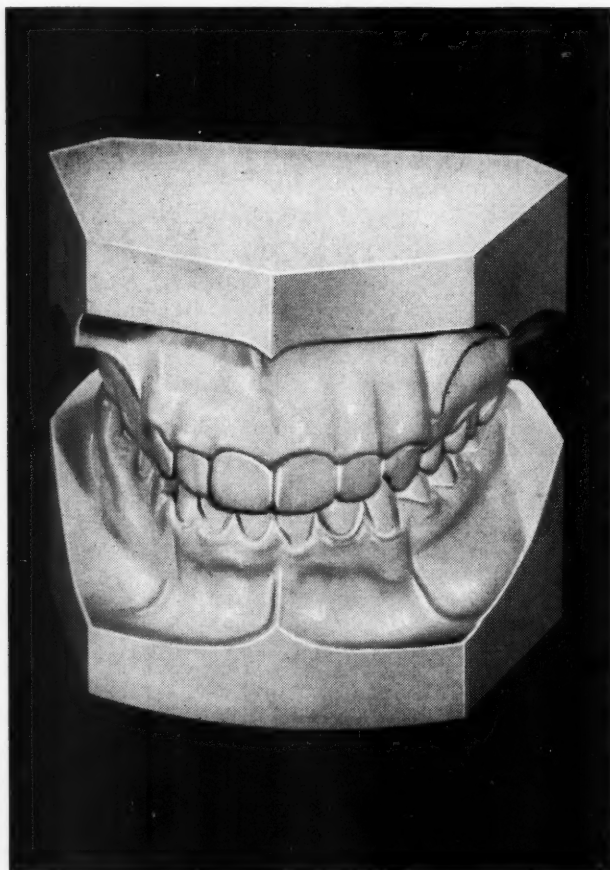
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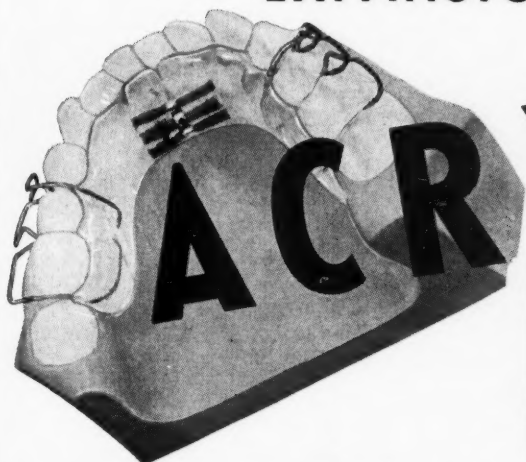
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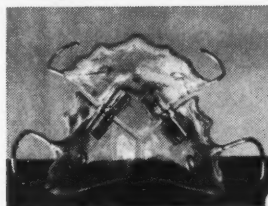
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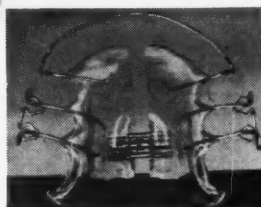


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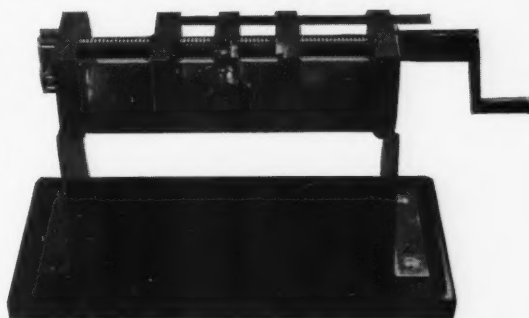
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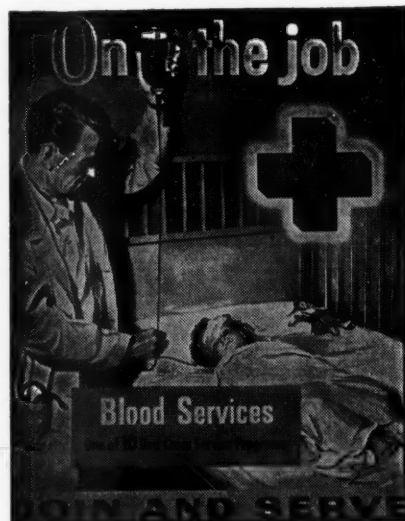
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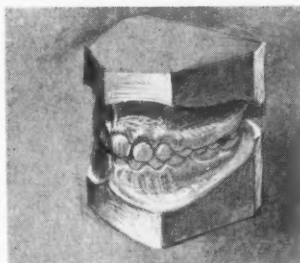
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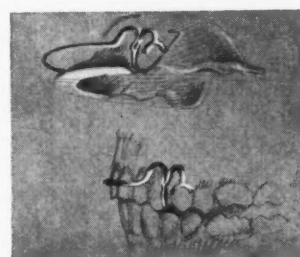


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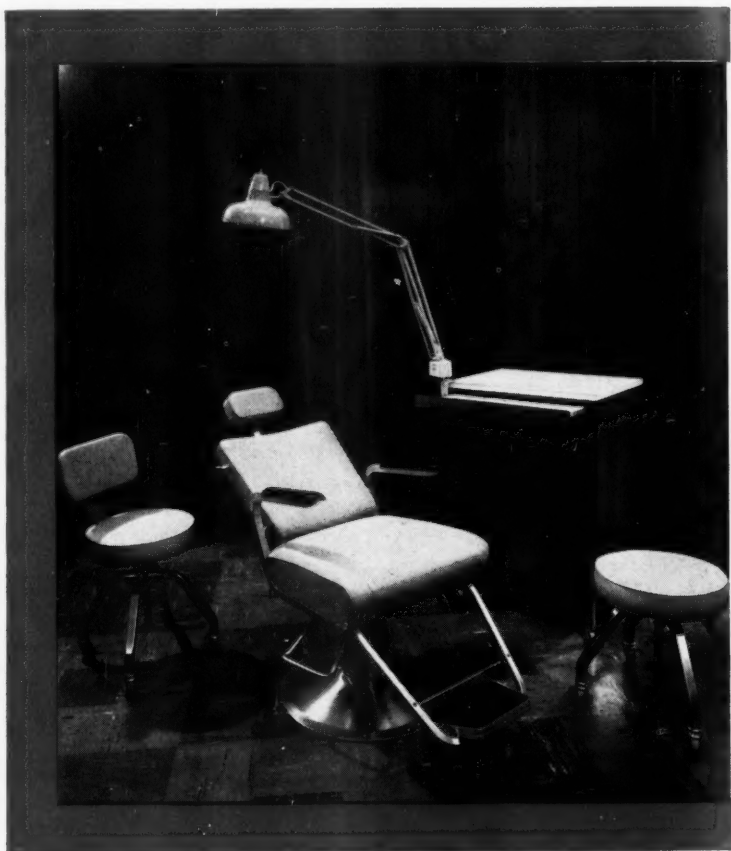
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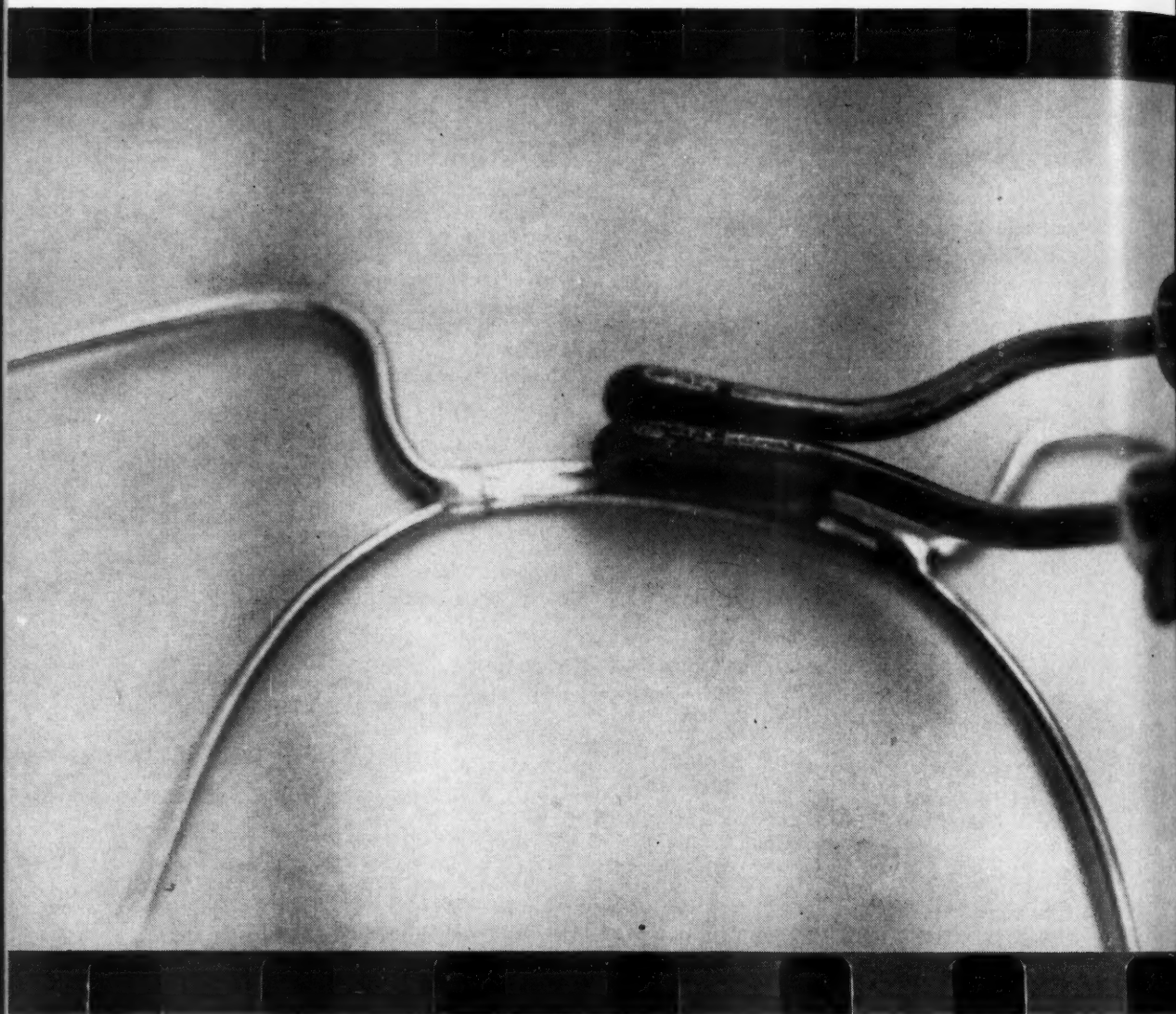
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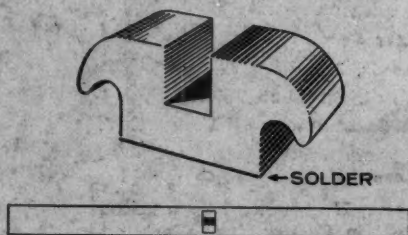
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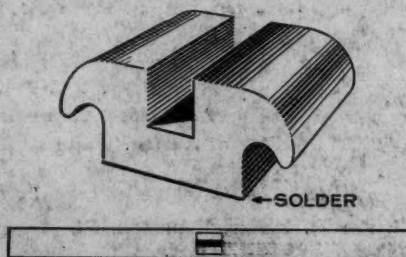
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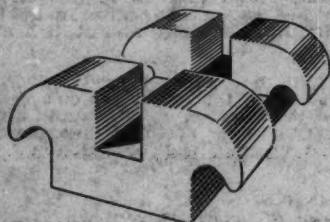
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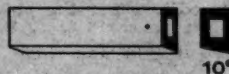
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